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1924.

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## THOUGHT FOR THE MONTH.

IF YOU WISH FOR SUCCESS IN LIFE, MAKE PERSEVERANCE YOUR BOSOM FRIEND, EXPERIENCE YOUR WISE COUNSELLOR, CAUTION YOUR ELDER BROTHER, AND HOPE YOUR GUARDIAN GENIUS.

—J. ADDISON.

## Editorial.

THERE IS MUCH food for thought in the able report of the 1924 Australasian fruit export season, issued by Messrs. F. W. Moore & Co., London, and published in this issue.

The matter of the shipping of "blemished" Apples has already been very much discussed, and although widely divergent views have been expressed on the subject, all are agreed that the excessive publicity given to the matter had a detrimental effect on sales. The fact needs to be borne in mind that U.S.A., which has a reputation for sending standardised products, also ships fruit of the quality of the blemished Apples. This is called the "Domestic" grade.

The matter of Dominion Preference is forcibly dealt with in the article referred to, and the view is expressed that whereas at the present time the Dominions do not produce enough fruit to supply the markets in the United Kingdom, ten years of preference would make all the difference.

With regard to the "brown heart," it is pointed out that the cause being now thoroughly well established, with proper precaution the trouble cannot recur. The various shipping companies are paying close attention to the results of scientific experiments, and are using every endeavor to ensure the safe carriage of Australian fruits to distant markets.

The news that the Cambridge Scientific staff is taking up the matter of "bitter pit" is welcome. There remains yet very much to be done to improve the transport of various fruits in cold storage from Australasia to the Old Country, and every additional effort in this direction will be warmly welcomed by the industry. We do not yet know nearly enough about the transport of Pears, Citrus, and Plums. Although the trade in Apples is fairly well established, scientific experiments under commercial conditions are necessary to make the trade safer, thus to eliminate any rule of thumb methods.

## NEW BRITISH GOVERNMENT.

Empire Preference will now be Ratified.

Since our last issue elections have been held in Great Britain with the result that the Labour Party has been completely routed. Mr. Stanley Baldwin is again Prime Minister, and the

Cabinet includes men who strongly favor Imperial Preference. The Colonial Secretary, Mr. Amery, has just made an important statement according to a London cable dated November 25th. Mr. Amery announced that the Government would carry out the preference recommendations of the Imperial Economic Conference, and would endeavor to clear the channels of Empire trade which were choked by various prejudices against Imperial Preference, and by vested interests.

The preference proposals include the following:—

**Dried Fruit.**—At present dried Figs, Raisins and Plums (includes Apricots) are dutiable at the rate of 10/6 cwt., if from foreign countries, and enjoy, if of Empire origin, a preference of one-sixth, i.e., of 1/9 cwt. It is proposed to admit those goods free of duty from the Empire, so that Empire Raisins, Figs, and Plums will enjoy preference of 10/6 cwt.

**Currants.**—At present dried Currants are dutiable at the rate of 2/- a cwt., and enjoy a preference of one-sixth, which on the existing duty only amounts to 4d. The Imperial Government is prepared to offer free admission to Empire Currants, and to consider what increase in the duty on foreign Currants may be necessary to make the preference effective, such increase to come into force at a future date to be agreed upon.

**Other Dried Fruit.**—At present there is no duty on any other dried fruit, but while continuing to admit such Empire dried fruit free, the Imperial Government would propose to impose a duty of 10/6 a cwt. on such foreign dried fruit (e.g., Apples, Pears and Peaches), as the Dominion representatives may consider of interest to their trade.

**Other Preserved Fruits.**—Preserved fruits, other than those mentioned above, are not dutiable save in respect of sugar contents, if any. It is proposed in addition to any such duty on the sugar contents to impose an all-round duty of 5/- a cwt. on the principal forms of preserved fruit not at present dutiable, except fruit pulp for jam manufacture, which will remain free of duty. All such fruit will be admitted free from the Empire.

**Raw Apples.**—It is proposed to levy a duty of 5/- a cwt. on raw Apples of foreign origin, and to admit raw Apples from the Empire free of duty, as at present.

**Lime, Lemon, and other Fruit Juices.**—The proposal of the Imperial Government is that a duty at the rate of 6d. a gallon shall be imposed on foreign Lime and Lemon juices, and the Government would consider a list of other fruit juices which the Dominions regarded as of interest to their trade. The same duty would fall on fruit syrups, and would be exclusive of the duty on the sugar content of such syrups. Fruit juices from the Empire will continue to be admitted free of duty.

IMPERIAL PREFERENCE SUP-  
PORTED.

"**Illimitable Market in Britain for Australian Fruit.**"

Sir William McPherson, M.L.A., ex-Treasurer of Victoria, who has just returned from Great Britain, believes in the importance of Dominion trade preference. He stated recently in an interview that amongst financial, commercial and trading people, there was a feeling of intense disappointment at the failure of the British Parliament to extend preference to Dominion goods. The question of trade preference within the Empire was so bound up with that of Imperial unity that it must soon be reopened. "Then," he added, "in my opinion, Parliament will give its assent."

"The Wembley Exhibition was a great success," Sir Wm. McPherson continued. "The Australian Pavilion was well designed, and the exhibits, though too few in number, were well displayed. The Australian fruit offered, however, was of poor quality, and was hardly a credit to the growers, but in spite of this the demand was constant. I think the growers lost a fine opportunity for advertising Australian fruit, and am more than ever convinced that there is an illimitable market in England for our products. In the provinces very little Australian canned fruit is to be seen for sale, but there is plenty of Californian and South African fruit. People in Australia realise that the weak point is marketing. When that problem is solved, we shall hear no more about over-production in Australia."

## NEWS IN BRIEF.

The Victorian Government announces that legislation for a Compulsory Dried Fruits Pool will not be enacted; but that other plans are in mind for effectively dealing with the handling of the coming crops.

Fruitgrowers in Tasmania, to the number of 750, have been served with a log demanding £6/10/- per week for pruners, and £5 per week for unskilled labourers. Growers are resisting the claims, and will ask the Arbitration Court that no award be made.

Producers of dried fruits on the Murrumbidgee Irrigation Areas, N.S.W., have decided to ask the State Government to enact legislation compelling the export of a certain proportion of each grower's fruit.

Banana growers in Queensland at a conference in November, endorsed, by a large majority, the policy of the Committee of Direction.

## PEAR GROWERS ORGANISING.

A meeting of Pear growers was held at Shepparton on the 13th November, Mr. E. J. Rule presiding. Delegates attended from Shepparton, Ardmona, and Tatura. The visitors included Mr. P. J. Carmody of the Department of Agriculture, and Mr. R. E. Boardman of the "Fruit World." Apologies were received from other districts.

It was decided to launch the Pear Growers Association of Victoria and to delegate its advertising powers to the advertising committee which had been formed to push sales. A discussion ensued as to the name of the Association, some growers being in favor of it being called the "Williams' Pear Growers' Association." It was finally decided to have the name sufficiently broad to include all Pear growers, though for this season the efforts would be concentrated on increasing the sale of Williams' Pears of which it was feared there would otherwise be a glut.

## ADVERTISING PEARS.

A committee of Pear growers has been constituted in charge of the duty of collecting funds from the growers on the basis of 1½d. a case on all fruit sent to factory or market. An agreement has been drawn up between the committee and the growers who signed it. The committee reports that growers on the whole have readily adopted the proposals for advertising. It is expected that over £500 will be raised in this manner. Mr. R. E. Boardman was appointed publicity officer. The programme includes advertising by means of posters, pamphlets, newspaper publicity, lectures etc.

## APPLES FOR EXPORT.

## "Blemished" Grade Prohibited.

An official announcement has been made by the Department of Trade and Customs to the effect that Apples and Pears exported in the coming season must conform to the regulations previously gazetted, which means that the "blemished" grade as shipped from Tasmania last season will not be again permitted.

If the Wembley Exhibition re-opens in 1925, as is anticipated, greater emphasis will be laid on the commercial trading aspects, with consequently better advertising for Empire products.

The Annual Show of the Diamond Creek Horticultural Society will be held on March 13, 1925.

A correspondent at Mildura reports success in growing Peanuts as a side line.

## APPLE CROPS ABROAD.

## Canadian and American, English and European Crops Reviewed.

## Lighter Crops Abroad and Increasing Continental Markets Indicate Better Prospects for Australian Growers.

A survey of the Apple crops in England, Canada and U.S.A. is as follows:—

## English Fruit Crop.

The English Apple crop is reported to be much below last year's production. Dessert varieties are very light in Cambridge, Essex, Lincoln and Norfolk, it being estimated that the Apples in those counties will be 50 per cent. below last year. In Kent, Middlesex, and Somerset yields 16 per cent. below last year are anticipated, and in Hereford and East Essex about the same as last year. Conditions in Worcester indicate a crop 30 per cent. below last year, but conditions are better in Gloucestershire, where a yield 20 per cent. above 1923 is expected. Cooking varieties will be 20 to 30 per cent. below last year in Cambridge, Essex and Norfolk, also in Worcestershire and Cornwall. The yields in Kent and Middlesex are estimated to be 10 per cent. below last year, and in Somerset 5 per cent. below. Hereford trees promise about the same as last year, while in Gloucestershire the yield will exceed last year by approximately 20 per cent. In Hereford cider Apples will be plentiful, and in Gloucester about 25 per cent. above last year. In Cornwall, Somerset and Worcester reports indicates yields 5, 10 and 40 per cent. respectively below last year.

## Canada.

The prospect for a Canadian Apple crop was recently estimated to indicate a 30 per cent. decrease in the eastern barrel sections of Ontario, Quebec, New Brunswick and Nova Scotia, while British Columbia is down 35 per cent. in boxes, as compared with the 1923 crop. With Ontario and the Maritime Provinces reporting smaller yields, with only fair quality, and British Columbia with a reduced crop as compared with last year, there is every indication of a firmer market with favourable returns to the growers producing good quality fruit.

## United States of America.

The crop of barrel Apples was recently estimated at 3.5 per cent. less, and of box Apples 25 per cent. less than last season, the Eastern States report generally that the crop varies from 55 per cent. to 13 per cent. less than last season. The North-Western States (the heart of the box Apple trade) report that the crop is 55 per cent. lower than last season, due to late shrinkage on account of dry weather, smaller sizes and late worm ravages.

In forwarding and commenting on the foregoing, Mr. P. H. Thomas, Tasmanian Government Fruit Expert,

states that reports indicate that fungus infection, particularly Black Spot, was extensive.

Thus with smaller crops in U.S.A., Canada and England there is not the likelihood of large quantities of Apples being held in cold storage to compete with crops from Australia.

Continental crops of Apples are also reported to be lighter than usual, whilst the general prospects of those countries indicate increasing prosperity with added purchasing power of Australian fruit.

## SUGAR AND FRUIT INDUSTRIES.

The Sugar Industry is an Important One, but its Present Methods are Expensive and Oppressive.

## Foreigners oust Australians.

Mr. Fred Charlck, of Charlck Bros. Ltd. Adelaide, who recently returned from a tour of inspection through the sugar producing districts of Queensland, stated in an interview with the "Fruit World," that while fully seized of the importance of the sugar industry to Australia, the general public is being asked to pay too much for the product. The price, instead of being 4½d. per lb. should be 3½d.

The high price of sugar and the present method of control adversely affected the fruit industry. Australians were now being ousted by foreigners such as Italians, Greeks, Russians and Assyrians. These men secured wages amounting to from £15 to £25 per week by working overtime, and on Sundays and holidays. The money was being sent out of Australia. These foreigners worked in families, in groups and in communities.

In one large sugar producing centre Mr. Charlck found 90 per cent. of the people were foreigners, and hearing so much Italian he walked into a chemist's shop—not to buy anything, but simply that he might hear some English spoken.

Justice could be done to the fruit-grower and the general public without harming the sugar industry.

## PERSONAL.

Dr. S. S. Cameron, Director of Agriculture for Victoria has returned after an interesting trip through America.

Mr. A. W. Palfreyman, Managing Director of the Australasian Jam Co. Pty. Ltd., recently returned from his interesting trip abroad.

Mr. H. D. Howie of Renmark has been reappointed chairman of the Board of Management of the Australian Dried Fruits Association.

## OBITUARY.

Sympathy is extended to Mr. and Mrs. J. Simson of Ardmona in the death of their bright seven year old son.

## Queensland.

### NEWS AND NOTES.

(By Our Special Correspondent.)

Another month of glorious rain. It seems as if the rain king is giving Queensland a special deluge to make up for previous droughts and partial droughty seasons that have been far too common during recent years.

#### STANTHORPE.

##### Tomato Pool Approved.

Stanthorpe Tomato growers have decided to have a Tomato pool for the 1924-25 crop. Last season there was no pool. The price per half bushel net to the grower after running the 1922-23 pool was 3/9. Last season's average is uncertain, growers marketing their own product, but it is understood the average price was much lower than the pool. Packing shed Tomatoes were in demand and according to the Bapaume shed manager, Mr. Bell, the average from his shed was 4/3 2-5 per half case, less 3d. shed charges, packing, grading and mailing.

##### Woolly Aphis and Parasite.

Mr. Hubert Jarvis, Queensland Government Entomologist, has been doing some very useful work in the Stanthorpe area with the parasite "Aphelinus Mali" which he imported from New Zealand. The urgent necessity of procuring a parasite to deal effectively with this unsightly pest (Woolly Aphis) has been engaging Mr. Jarvis's attention for some considerable time and his recent review of the work will be of great importance to the fruit growers of Australasia.

In his review Mr. Jarvis states.—The parasite (Aphelinus Mali) has made good progress here (Stanthorpe) the life history is as follows:—The parasite is a tiny Chalcid wasp, measuring about one twenty-fifth of an inch in length, it is somewhat like a honey bee in shape, but blackish in colour, with a yellowish band round the base of the abdomen. It is very active, and can jump and fly quickly. The female (Aphelinus) lays from 50 to 60 eggs one by one, she stabs the aphis with her short and sharp ovipositor, at the same time inserting one egg in each aphis.

The aphis objects to this, squirms, and often exudes a drop of liquid, but the wound soon heals and in a few days' time a tiny wasp grub is hatched out of the egg, and proceeds to devour the whole of the internal organs of the aphis, which contains just enough food to bring the wasp to full size.

When full grown the grub hardens the shell of the dead aphis into a kind of cocoon within which it turns to a pupae or chrysalis.

Dead aphis containing Aphelinus pupae can always be recognised by their black swollen appearance. After a varying period of time spent as a pupae, the Aphelinus emerges as the perfect insect and pairing takes

place. During warm weather the complete life cycle of the parasite is gone through in five or six weeks, so that from four to six broods can be raised in a season in a fairly warm climate.

Mr. Jarvis further states that the Aphelinus Mali will attack any of the dark-coloured aphids. This useful parasite of the woolly aphis is now firmly established in one orchard near Stanthorpe, and a good supply is now available. Mr. Jarvis is very keen and has worked very enthusiastically in the common interest, and he is desirous of having them established in as many orchards as possible.

#### AMERICAN APPLES.

At the monthly meeting of the deciduous group committee of the Committee of Direction the following motion was passed:

"That this committee view with alarm the statement in the press, that a shipment of Canadian Apples is to leave Canada for Australian ports for the Xmas trade. In view of the fact that Canada has been quarantined against the markets on account of the existence of Fire Blight in Canada and U.S.A.

#### MINIMISE BRANDING OF CASES.

##### A Reasonable Request.

A motion was carried at the Stanthorpe Fruitgrowers meeting requesting the authorities to review the matter of branding the "guarantee brand" on the ends of cases. It is argued by growers that since all the States have legislation governing the size of cases it is purposeless to continue to impose on fruitgrowers the necessity of putting the guarantee brand on the end. The policy should be to reduce branding to a minimum. Branding costs money.

#### HAIRY ROOT ON FRUIT TREES.

##### "Mare's Nest" in Queensland.

Inspectors in Queensland who condemned Victorian fruit trees for the alleged disease Hairy Root, have exceeded their duty. Mr. Henry Tryon, the Government Plant Pathologist, denies having stated that the alleged disease was present. The Victorian Department of Agriculture has prepared a report stating that the alleged disease is non-existent in Victoria. The report is endorsed by competent scientists. The slight swelling at the roots on trees of northern spy stocks is well known to be typical of this variety, it being purely natural and no disease being present.

\* \* \* \*

It is a great pity when "scares" such as the foregoing are broadcast. Victorian nurserymen are equal in skill to their fellow craftsmen in any other part of the world, and the nurseries are regularly inspected by Government officers. No trace of the alleged disease Hairy Root has ever been found in Victorian nurseries, and it is hoped that the matter will be viewed in a practical manner by all concerned.

#### BANANA GROWERS' CONFERENCE.

##### Policy of Committee of Direction Endorsed.

##### Grading Regulations: Hot-house Needed for Scientific Research.

THE quarterly meeting of the Banana Sectional Group Committee, organised under the Fruit Marketing Organisation Act, was held in Brisbane on Thursday, the 13th November, 34 representatives of the Banana districts throughout the State being present.

One of the principal items of business was consideration of a motion from Cooran that the present policy of the Committee of Direction of Fruit Marketing, of limitation of agents, be abolished. For some months past the Cooran Association has had delegates visiting local associations to address them on this matter, in preparation for this meeting of the Banana Sectional Group Committee. A very full discussion took place, the big majority of those present being of the opinion that limitation of agents had resulted in big benefits to the growers. On the question being put to the vote, the Cooran motion was overwhelmingly defeated by 28 votes to 6.

##### Committee's Floor Successful.

Since the 30th June last, the Committee of Direction has sold all green Bananas on the Brisbane market, and lately established ripening rooms. A full report on the activities was presented to the conference. Delegates, on behalf of local associations supplying this floor, expressed their keen appreciation and satisfaction at its operations, and a motion was passed unanimously approving of the present policy of passing in and ripening any lines not reaching a reasonable reserve. It is interesting to note that Brisbane supplies at present are about three times those of the corresponding period of last year.

##### Scientific Research.

Professor Goddard addressed the conference on the future of the Banana industry, and stressed the necessity for preparing in advance for any possible trouble that might arise from disease or pests. He is extremely anxious that a hot-house should be erected for the study of the maturation of the fruit and other Banana problems. The Committee voted an amount not exceeding £750, providing the Government subscribe an equal amount towards the erection of the hot-house recommended by Professor Goddard.

##### Grading and Packing.

The grading and packing sub-committee appointed to draw up, in conjunction with Mr. Rowlands, a packing pamphlet, presented its report. It is hoped that the pamphlet will be available very shortly, when a copy will be sent to every Banana grower in Queensland, with an intimation that

as from a fixed date rigid inspection of interstate consignments will be made. In view of the exceptionally large supplies going forward—over 100 per cent. more than the corresponding period of last year—it is important that grading standards be strictly observed, and the best pack possible be adopted.

#### Grade Names.

From reports received from various quarters it is obvious that the naming of the grade standards needs revision. Buyers appear to think that if a case is labelled "seconds," that the quality of the Banana is inferior, whereas the word "second" was only adopted to indicate the smaller size being shipped south. Growers contend that the quality does not depend upon the size, and it has been decided that in future the grade standards will be known as "standard," "choice," and "special."

#### Thulimba.

Mr. J. Lumb writes:—Concerning the crops in this district, although there was a very heavy showing of

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blossom on all varieties of Apples, the setting in most cases, to my knowledge, is only about medium.

In the case of stone fruits, some varieties are showing well, while others are on the light side.

On the whole, I should say the crop would be about medium.

(Continued on page 572)

### SOUTH AUSTRALIAN JAM FRUIT POOL.

The South Australian Government is understood to be favorable to the financing of a jam fruit pool. Agreements have been drawn up. The Fruit-growers' Co-operative factory has made provision for handling 2,000 tons of fruit, which should allow the growers to obtain a minimum price on the open market, and giving the growers an opportunity to secure favorable prices for canning fruits.

A correspondent in South Australia notes that canning fruit growers in Victoria are asking for £12 a ton, and consider it unwise that growers of jam fruits are not being catered for.

### South Australia.

#### CROP PROSPECTS.

##### Berri.

Mr. C. G. Savage, Deputy Horticultural Instructor, Berri, reports as follows, under date 17th November:

The fruits chiefly grown are Vines,—(Sultanas, Currants, Gordos, Doradillo, few wine and export Grapes).

Stone Fruits,—Apricots:—(Moorpark principally, Royals, few Blenheim and Oullins Early). Peaches:—(Mainly Elbertas, with smaller lots of Early Crawford, Salwey, and Lady Palmerston). Nectarines,—(Goldmine, and a few Stanwickes). Almonds,—(Brande's Jordan, White Nonpareil and Peerless, few of Hatch's Nonpareil, I.X.L. and Ne Plus Ultra, and many seedlings). Prunes,—(D'Agen, Splendour, Sugar, with a few Fellemberg).

Pears,—Principally Williams.

Apples,—A few for home use.

Citrus,—Washington Navel Orange principally, followed by late Valencia and Mediterranean Sweet Oranges; Lemons,—Lisbon. Mandarins,—Beauty of Glen Retreat and Dancy's, with a few Emperors and King of Siam.

The crop prospects for the coming season are as follows:

Sultanas,—Good, not as heavy as last season.

Currants,—Heavy, about the same as in 1923/24.

Gordos,—Heavy, about the same as last season.

Doradillo,—Good, not equal to previous year.

Apricots,—Very heavy, one of the heaviest crops of recent years; most crops could be heavily thinned with advantage.

Peaches,—Good to heavy,—should give heavier yields than that of last season.

Nectarines,—Good to heavy, should be heavier than in 1923/24.

Almonds,—On the whole very heavy, far in advance of last season.

Prunes,—Light to medium, not equal to 1923/24.

Pears,—Medium to heavy crop, not equal to last year, but should be an average crop.

Oranges (Washington Navel),—Shedding of fruit not completed, consequently it is too early to give definite statement. Indications point to a very good crop.

Lemons,—Promise well.

Mandarins,—Light, not as good as last season.

Owing to favourable weather during the spring months, Black Spot and Oidium of the vine have been in evidence. Though fairly general no very severe attacks have been reported. Spraying with Bordeaux and Burgundy mixtures against Black Spot has been extensively followed, and Sulphuring against Oidium has been the remedy applied.

#### Renmark.

Mr. C. A. L. Morant, Renmark, S.A., reports (17/11/24) as follows:

Sultanas, Currants, Gordos, Doradillo, Apricots and Oranges are the chief fruits cultivated in this district, of which the crops generally are expected to be heavy.

Vine fruits (except Doradillo, which are lighter) will probably yield the same as last season.

6,500 acres were under fruit last season, producing 4,500 tons dried fruits, 4,800 tons Grapes for wine and spirits, 20,000 cases of Oranges, 12,000 cases of other fruits.

#### Moorook.

A report is to hand from Mr. J. Aird, of Moorook, dated 17th November, giving a general outline of the season's prospects in that district.

The acreages under fruit are as follows:—Currants (185), Gordos (162), Sultanas (168), Malagas (21), Doradillo (145), Naval Oranges (67), Late Valentias (3), Mandarins (3), Moorpark Apricots (49), Elberta Peaches (32), and Duchess Pears (6).

It is anticipated that the crops will be from medium to heavy, Apricots comparing favourably with last season, whilst Peaches, citrus fruits and Grapes (excepting Doradillo) are expected to yield about the same quantity as the previous season. Doradillo Grapes and Pears will probably show a lighter crop.

The acreage under fruit has been increased this year, showing 901 acres as against 850 in 1923.

The tonnage of dried fruit produced last season was as follows:—Currants (255), Sultanas (126), Lexias (120), Apricots, Peaches, Nectarines and Pears (16½).

At the Moorook Distillery, 505 tons of fresh Doradillo, and 44 tons of Gordos were treated.

Generally speaking, orchards have been well worked this year, and all trees and vines are making splendid growth. Up to the moment they have been free of disease, but the area is not yet fully planted or in full bearing.

#### Waikerie Irrigation Area.

Mr. J. J. Odgers, of Ramco, reports that the principal fruits grown in the above district are Apricots (Moorpark), Peaches (Elberta), Nectarines (Goldmine and Stanwick), Pears (Duchess), Prunes (D'Agen). Vines are also grown extensively for drying purposes, including Gordos, Currants and Sultanas. A very small quantity are sold fresh.

The crop anticipations for the season are as follows:—Apricots, heavy; Peaches, Nectarines, Prunes and Pears, medium. In regard to vines, Gordos and Sultanas will not doubt yield a heavy crop, whilst Currants are expected to be from medium to heavy.

Apricots and Prunes give indica-

tions of a heavier yield this season than last, whilst other fruits, including vines show promise of being about the same as last year, when the district produced 350 tons of dried fruit.

A dry winter has been experienced in this locality, the rain commencing about the end of August. From the beginning of September to the middle of November five inches of rain fell, also there were some exceptionally heavy winds. Fortunately, however, the damage is slight, but the humid conditions have been favourable to the "Black Spot," which is showing considerably, and many growers are spraying extensively. A fairly large area of citrus is cultivated, and has flowered well, but it is rather early as yet to state the prospects of the crop.

#### Mypolonga.

Taken on the whole our fruit crops for the season should be fair to good (writes Mr. H. Blizzard, under date, 17th November). There was a heavy setting of stone fruits, but the storms (thunder, hail, wind and dust) of the past few weeks have thinned them out. Prospects, however, are good.

Our principal stone fruits are Apricots, Peaches, and Nectarines, all drying varieties, of which Moorpark, Elberta and Stanwick are the main ones; crops are expected to be considerably heavier than last season.

Vine fruits, Currants, Sultanas and Lexias, are at present very promising, but as flowering has not yet eventuated, crop estimates are uncertain.

Citrus are setting very well, although these, too, have suffered from the rough weather. However, given normal conditions, crops should be heavier than the past season.

The promised Compulsory Export Pool of Dried Fruits has heartened the

loyal growers, who are getting tired of carrying the baby, and reckon that it is time for the other fellow to share the burden.

#### Marion.

Mr. George Western, of Marion, S.A., reports under date, November 18:—

**Apricots, Peaches and Grapes** are the principal fruits grown in this district. Moorpark is the principal and Newcastle Early are also grown variety of Apricots. Oullin's Early for market.

**Peaches.**—Most table varieties are grown extensively for the Adelaide market, also Pullar's Clings for factory. Most varieties of Peaches do well in this district.

**Grapes.**—For market purposes Red Prince, Black Malaga, Sweet Water, and Muscatel are the principal varieties. Muscatels easily first on the list.

Grapes for wine and distillery use are also grown in this district. Principal lines are—Pedro, Grenache, and Doradillo, and a few of the choice varieties.

#### Crop Anticipations.

**Apricots.**—Heavy.

**Peaches**—Medium to light, owing to the ravages of the Green Peach Aphis, which has been almost impossible to control, some orchardists having sprayed with Black Leaf 40 three to four times before gaining control. In fact, it has practically ruined the canning varieties as regards this season's crop.

Comparing the coming crop with last season:—Apricots will be heavier. Peaches, lighter. Grapes, as far as can be now judged, lighter.

Between 600 and 700 acres are under fruit in this district.

Large quantities of Tomatoes and Cucumbers are also grown locally.

Generally speaking, the whole district is looking well, and will produce a big tonnage of marketable fruit this season.

#### Norton's Summit.

A report of the crop anticipations in the Norton's Summit district is to hand from Mr. Chas. W. Giles, of Grove Hill. Apples, Pears, Plums, Cherries and Strawberries are the main fruits cultivated in this district, the chief varieties being as follows:—

**Apples.**—Rome Beauty, Jonathan, Gladstone, and a few other kinds.

**Pears.**—Duchess (Williams'), Packham's Triumph, Josephine, Madam Cole, B. Diel, etc.

**Plums.**—President, Diamond, Coe's Golden Drop, Greengage, Fellemburg, Prune D'Agen, Grand Duke, etc.

**Cherries.**—Early Purple Guigne, Early Lyons, Black Tartarian, Waterloo, St. Margaret and Up-to-date.

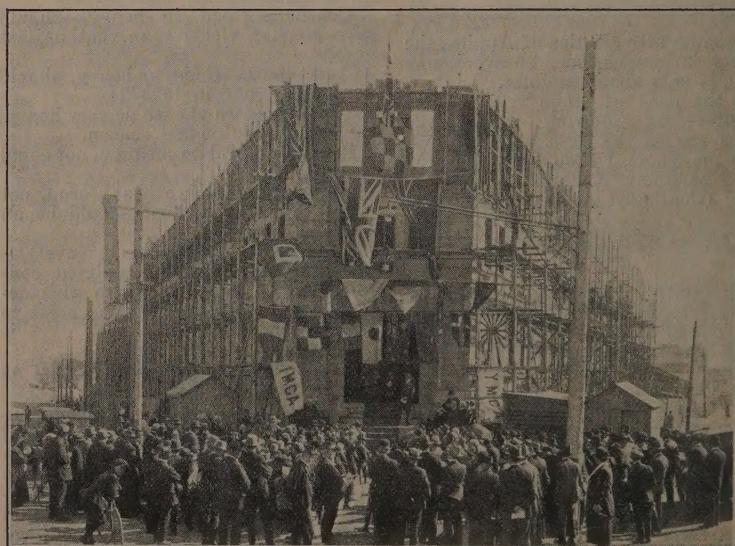
The general crop of all fruits is from medium to light. The early Cherries in some places are very light, and would not pay to pick, but the later kinds, on the whole, have a fair crop. Apples are light, generally speaking, and Pears are a total failure excepting Duchess, which, owing to the wet weather, is showing Black Spot, despite extensive spraying. With the exception of strawberries, which show indications of a good yield, the crop generally is very much lighter than last season.

This district has not increased its acreage of fruit planting this season. The weather has been right against the setting of fruit ever since the trees bloomed, and the continued wet season has been responsible for such a light crop.

(Continued on page 569)

#### "A HOME AWAY FROM HOME."

The Governor of Victoria (the Earl of Stradbroke) laid the foundation stone in Melbourne during November. The building is on the south side of Prince's Bridge, about two minutes' walk from the Flinders-street Central Railway Station. The Y.M.C.A. aims to be "a home away from home," and to conduct a bright, helpful programme for men and boys. The building is now in course of erection, and will be ready for occupancy early in the New Year. The facilities include sleeping accommodation, swimming pool, and clubs for every healthful recreation. The sign of the Y.M.C.A. is a triangle signifying the all-round equal development of a threefold character—spiritual, mental and physical. Country membership is invited. The General Secretary of the Association is Mr. G. W. B. Hughes, 130 Flinders-street, Melbourne.



New Y.M.C.A. Building in Melbourne.—Governor Lays Foundation Stone.

# Cold Storage In Australasia

## THE COLD STORAGE OF FRUIT.

A paper prepared by Sir Geo. Knibbs, K.B., C.M.G., Director of the Institute of Science and Industry, and read at the recent Fruitgrowers' Cool Store Conference.

ONE engaged in any particular one of this world's activities is apt, owing to its demands for concentration, to see it out of proper perspective in the totality of human affairs. For this reason, it is well when those engaged on the scientific and the practical sides foregather. Thus those not engaged directly in an industry may sometimes be helpful to those actually engaged in it. In any case, it will be of interest to express one's point of view.

From time immemorial man has continually been forced to see the necessity for the storage of food, and (perhaps too often?) this has involved various devices for its preservation. In the course of time many methods have been evolved; to mention but a few of them we have smoking, drying, salting, preservation with chemicals, and what perhaps is of more direct interest to us now—storage at low temperatures. This last is one of the most satisfactory of methods, involving as it does no serious alteration of the properties of the fresh material.

Our ancestors were often desirous of a cheap process of producing cold. It is only within the last few decades, however, that this has been possible, and so one of the first attributes of the cold storage industry, apparent to a mere observer, is its comparative youth. On this account it is a most likely field to repay intensive scientific research. In this connection also it may be remarked that when carrying out investigational work relating to a new industry it is a wise policy to give free rein to the imagination. In the older industries, research sooner or later becomes limited to more or less restricted avenues.

Following the introduction of methods of cold storage, it was soon found that they were efficacious in either completely stopping or retarding the rate of deterioration by reason of their checking the growth of attacking organisms, and it has, of course, long been known that—with certain limits, and speaking generally—the lower the temperature the greater the amount of this arrest. Some foods, however, do not admit of an indefinite lowering of temperature without a parallel loss of texture, flavour, etc., a matter of very great commercial import.

The article herewith is from the pen of Sir Geo. Knibbs, K.B., C.M.G., Director of the Institute of Science and Industry, and was read at the recent Annual Conference of the Fruit Growers' Cool Stores Association of Victoria. The paper was received with appreciation.

Sir George sets forth not only details of scientific value, but also makes suggestions of commercial importance. It is a splendid contribution in the cause of scientific research, and into cold storage problems and possibilities.

It is to be hoped that the Commonwealth Government will make the necessary funds available for the Institute of Science and Industry to function effectively in performing original research and co-ordinating scientific investigations into cold storage problems under Australian conditions.—Editor.

These changes of texture not unfrequently occur quite suddenly, directly such foods are thawed after storage at a temperature below their freezing points. On this account it is convenient to divide foods into two classes:—

- (a) Those that can be frozen and then thawed without serious changes in their texture, flavour, appearance, etc. (as compared with the unfrozen material.)
- (b) Those that can not be so treated without serious changes taking place.

In other words class (a) consists of foods which are now stored on a commercial scale in the frozen condition, and class (b) consists of those which, in commercial practice, are maintained at a temperature of about 32 deg. F. or over, i.e., those that are merely "chilled."

Freezing, of course, is much more potent in inhibiting decay and the growth of organisms than is mere chilling. So great is this difference and so many are the advantages of freezing that it might well be laid down that the main aim of cold storage research should be a continual striving to transfer all foods from the chilling class to that of the freezing class.

In this connection it is well known that fruit is typical of the chilling class, whereas meat, such as lamb, mutton and poultry, is usually frozen.

Beef is perhaps in a transitional stage. When frozen and then thawed a certain amount of liquid or "drip" exudes from any cuts that may be made in the thawed products. Microscopical investigations have shown that this drip is probably due to the partial separation of water from the cells of the meat during the freezing process.

Workers in other countries have also found that very rapid freezing tends to prevent this separation, and from this discovery it is hoped to evolve a commercial process for the freezing of beef. In this connection it might be mentioned that a small amount of experimental work on beef freezing is already being done at the Government Cool Stores, Victoria Dock, Melbourne.

It is not pleasant, however, to have to record that the investigators are working under many difficulties, and that it is only through the co-operation of the Australian National Research Council, the Institute of Science and Industry, and the Victorian Agricultural Department and the Melbourne University and others, that it has been possible to do anything at all, although the research is of great national interest.

\* \* \* \* \*

**F**RUIT WHEN FROZEN in the ordinary way, and then thawed, suffers a far more serious loss of its juice content than does beef and the final product is quite unlike the fresh material. It is most unfortunate that this is so, as the juice itself when stored at 0 deg. to 15 deg. F. can be kept without deterioration for long periods, and doubtless fruit itself could be so stored if some means could be found to prevent its juice escaping. The leakage of juice on thawing is brought about as a result of damage to the cell structure of the fruit, and it might be well at this stage to consider briefly how the

### flesh of fruits

is made up. From a chemical point of view a considerable amount of information is available, and much work of this nature has been carried out by the U.S. Agricultural Department's Bureau of Chemistry.

For the Peach, when ripe, average figures of this Bureau are:—Flesh, 92 per cent. of the total weight; this flesh being made up of—Marc, 2.5 per cent.; reducing sugars, 2.0 per cent.; sucrose sugar, 6.0 per cent.; acid as  $H_2SO_4$ , 0.56 per cent.; the total of these being 11 per cent. The remaining, 89 per cent. is chiefly water.

The composition of other fruits is of a very similar character. The flesh is made up of minute cells, which contain the greater part of the fruit juice. This latter, however, is by no means simple in its composition, and consists chiefly of water holding in solution such soluble materials as varieties of sugars, inorganic salts, etc. Colloids, such as proteins, dextrines and other complex organic compounds, are also present, and perhaps still other materials occur as suspensions.

A rather important point is that the juice is in equilibrium with the cell wall, both chemically and physically. This fact has been brought out by Demoussey,\* who has subjected fruits to a series of increasing pressures, and analysed the juice at each expression. As a result of this treatment he concludes that the difference in the physical structure of the cell of any particular fruit is accompanied by a difference in the chemical composition of its contents. There is a certain amount of localisation, but it is not the same for all fruits. Sometimes it is the least resistant cells that are poorest in acids and sugars, and at other times the reverse is the case.

Let us now endeavour to follow what happens when the content of any particular cell

is subjected to an ever-increasing degree of cold. Few changes take place until a temperature slightly below 32 deg. F. is reached. Ice then begins to separate out, and this at once upsets the equilibrium of the cell wall and its contained liquid. The latter becomes more and more concentrated—a change inevitably accompanied by important effects, such as the increase of osmotic pressure, etc.

As more and more ice separates, the materials in solution or suspension also begin to be salted out, either as eutectics or as the simple compounds. On thawing all the substances capable of going into true solution again dissolve, and as far as they are concerned the juice is re-formed, but in many cases freezing of colloidal solutions causes separation of the solid colloid in such a way that on thawing it does not again go into colloidal solution. Thus it is possible that some of its former colloidal contents are not returned to the thawed fruit juice.

In this connection it is of interest to consider the work that has been done on the

#### freezing and thawing

of some simple colloidal solutions. Much of this work is discussed in the British Food Investigation Board, Special Report No. 7, written by Dr. W. Stiles. In the first place, it appears that on thawing these solutions their reversibility is affected by the presence of either "protective colloids" or of electrolytes. Thus a frozen colloidal solution composed of ferric hydroxide and water is reformed on thawing, provided electrolytes are present. If these are removed by dialysis before freezing then the solution becomes irreversible. Again, the rate of freezing has an important effect on the reversibility. Thus Stiles, working with a colloidal solution of chlorophyll, found that the more rapidly frozen solutions were reformed on thawing, while in those most slowly frozen the chlorophyll aggregated into comparatively large flocks, which were visible as such in

the solid mass of ice. On thawing the latter the flocks of chlorophyll gradually collected together at the bottom of the vessel, leaving a clear liquid above. Intermediate freezing velocities caused only a partial separation.

There are indications that the rate of thawing also exercises an effect on reversibility, e.g., a solution of gelatine and water is colloidal in properties, and on freezing forms a highly complex network in which the meshes enclose little masses of ice. On thawing quickly the network remains for many days, but in time it disappears and the original solution is apparently re-generated. These differences between rapid and slow freezing are also borne out in an interesting way in experimenting with living organisms.

Thus Stiles mentions an experiment of Kuhne, in which a staminal hair of *Tradescantia virginica* was cooled in such a way that it froze practically instantaneously. The temperature used was -14 deg. C., and it was maintained at that temperature for five minutes, yet on thawing it again lived. On the other hand Molisch, working with the same genus, but freezing staminal hairs slowly, was unable to find any life on subsequent thawing. In passing, it may be mentioned that it has also been found possible by Kahm to freeze small animals without killing them.

Thus air dried moss containing small rotifers and nematodes has been subjected for seven hours to helium gas at as low a temperature as -150 deg. C. This treatment, of course, freezes such small organisms extremely rapidly, but on thawing they recover, are alive, and show no sign of injury.

If such apparent impossibilities can be done with animals might it not well be asked whether the last word has been said in regard to the freezing of fruit? Before leaving this aspect of cold storage I would emphasise that the rate of thawing, as well as that of freezing, exerts an important effect. Perhaps in the past, too little attention has been given to the problem of correct thawing.

\* \* \* \*

**P**ASSING ON to the "chilling" of fruit, we are at once in a field in which much experience, practical and otherwise, has already been gained. The chilling merely results in altering the rates of the many reactions that go on in the living fruit, or in other words, it does not kill the fruit, but merely causes it to live at a slower rate. This last statement is perhaps not strictly true as the effect of temperature affects certain of the reactions that take place to a greater extent than it does others; consequently cold storage fruit is not always absolutely identical with ordinary stored fruit of the same degree of ripeness; for instance, it has been demonstrated in England that the sugar contents of Apples

from ordinary storage is consistently higher (in spite of their more rapid respiration) than that of Apples in cold storage.

Years ago Molisch pointed out the same thing in a more general way when he stated that the different processes in plant organs are interrelated, and if the velocities with which these processes occur are altered in different degrees (as by temperature) then the equilibrium is disturbed.

A very good illustration of the effect of chilling on fruit is obtained from a consideration of their respiration. It has long been known that fruit, even when on the tree, absorbs oxygen and gives off carbon dioxide, and that this takes place at the expense of its carbohydrate content. In other words

#### the fruit breathes,

the action of which consists of an oxidation of carbohydrates, chiefly sugars, into carbon dioxide and water.

This respiration is a phenomenon which has been much studied. It has been found that as soon as the fruit is picked, and as ripening proceeds, respiration generally increases in amount, but in the later stages of maturation it decreases.

In the case of the Apple, the British Food Investigation Board has found that the rate of  $\text{CO}_2$  produced at the maximum is about half as fast again as when the fruit is first gathered, and that this holds true no matter at what temperature the fruit is stored. The same authority also finds that the time taken to reach this maximum is definitely a function of the temperature of storage, e.g., in Apples maintained at 22.5° C. it is 7 days, at 10.0° C. 28 days, and at 2.5° C. 180 days.

Respiration throws yet more light on the nature of the changes that take place in ripening fruit. Some years ago Gore, of the U.S. Bureau of Chemistry, investigated the amount of carbon dioxide given off by various fruits at different temperatures. He found that if  $y$ —the respiration or the amount of  $\text{CO}_2$  given off per unit time at  $0^\circ\text{C}$ , and  $y$ —the corresponding value at  $t^\circ\text{C}$ , then  $\log y = \log y_0 - a t$ , where "a" is a constant which does not vary very much for different fruits, its average value being 0.0376. If in this equation we make  $t = 8^\circ\text{C}$ . it becomes

$$\log y = \log y_0 - 0.03008. \\ = \log y_0 - \log 2, \text{ very approximately.} \\ = \log (2y_0);$$

in other words from every  $8^\circ\text{C}$ . rise in temperature, the rate of respiration is almost exactly doubled.

The respiration of plant-products other than fruits is similarly affected by the temperature, and in this connection Van't Hoff has stated that the effects of a rise in temperature on the rate of respiration of wheat, and on the rate of increase of chemical reactions with temperature, are similar. As Gore points out, the fact that the

respiratory processes of fruits follow the same rule as do chemical reactions, is of great significance, indicating as it does that the fundamental life processes of fruits are of a chemical nature.

The theory that respiration, and indeed that the whole process of the maturing of fruits, is of a chemical nature, has led in the past to the introduction of many methods of fruit preservation, and in the future should lead to many more.

For example, it requires but a simple deduction from the chemical law of mass-action to arrive at the conclusion that a decrease of the concentration of oxygen should result in a decrease of the respiration rate; also that an increase in the carbon dioxide concentration should result in the same thing.

This conclusion is the basis of the British Food Board's

#### so-called "gas storage"

of Apples. The atmosphere they use is one of 8 per cent. oxygen, 14 per cent. carbon dioxide, and the remainder nitrogen. It has been found that keeping Apples in such an atmosphere doubles their storage life.

In the case of either Apples or of certain other fruits, however, it has not been found practicable to use an atmosphere containing no oxygen, as respiration then becomes controlled by other actions, probably enzymatic in nature, and alcoholic fermentation takes place to such an extent that the flavour is seriously impaired.

In this connection it is interesting to note that certain varieties of Plums are exceptional, as they can tolerate a low percentage of oxygen for a considerable period, and yet develop no alcoholic fermentation.

In the case of Apples, it is also not possible to increase the concentration of carbon dioxide indefinitely, as otherwise brown-heart or other physiological disturbances quickly result.

Many other chemical changes take place on ripening or maturing fruit, and all have a bearing on its cold storage properties. To briefly mention the more important of these changes we have the slow hydrolysis to sugar, chiefly sucrose, of the starch which occurs in the green fruit. This change is practically complete when the fruit is ripe. We have also the yet slower hydrolysis of the pectin forming bodies which are chiefly present in the walls of the cells, the almost imperceptible lessening of the acid content, and the gradual increase in softness of the flesh.

\* \* \*

**A**NOTHER MOST IMPORTANT material, present in fruit and which has not yet been mentioned, is the class known as the enzymes. These exert a most powerful influence on the rate of the changes just mentioned, and also on the rate of respiration. The enzymes are very complicated organic sub-

stances, the mere presence of which suffices to hasten or retard a particular chemical reaction. In other words, they are organic catalysts. They have definitely been shown to be present in many fruits. Thus in the case of the Apple Thatcher (Journal of Agriculture Res. 1915, p. 103), finds that diastase, the starch hydrolysing enzyme, is absent; that invertase is also absent, and to this fact is due the non-conversion of sucrose into invert sugars; that a small amount of an esterase capable of hydrolysing ethyl malonate is present; and that a protease which slowly hydrolyses the proteins is also present. As is well known the Apple also contains an oxidase, to the presence of which is due the rapid oxidation or darkening of the surface which is so noticeable when a specimen of this particular fruit is cut.

The enzyme content of fruit has also been investigated by the British Food Investigation Board, which proposes to divide fruit into two classes:

1. Comprising the Apple, Quince, Pear, Plum, Cherry, Peach, Apricot, Strawberry, Banana, Grape, Fig and Mulberry.

This division contains two enzymes—a peroxidase and an oxygenase—together with a substance containing the catechol grouping. The oxygenase catalyses the oxidation of the catechol with the formation of a peroxide, which is then decomposed by the peroxidase with the liberation of active oxygen. Hence the system can transfer oxygen from the air, and after the death of the fruit (as by freezing) it becomes uncontrolled and very serious and rapid destructive oxidation takes place.

The second class comprises the Orange, Lemon, Grapefruit, Raspberry, Blackberry, Red Currant, Black Currant, Gooseberry, Pomegranate, Pineapple, Melon and Tomato. These fruits contain only a peroxidase, and hence there is no system for the transference of oxygen after death.

It has been found that the only fruits which can be kept in a satisfactory condition when frozen in contact with air are those of the second class.

The enzyme content of the different fruits varies considerably, and perhaps this is one of the causes of the great differences in their behaviour in cold storage, and in their rates of maturing and of respiration. In this latter connection some average figures quoted by Stiles are informative:—

	Miligrams of CO <sub>2</sub> given off at 0°C. per hour per kilo of fruit (respiration number).
Blackberries . . . . .	30.9
Raspberries . . . . .	20.4
Strawberries . . . . .	17.8
Plums . . . . .	6.5
Red Currants . . . . .	5.0
Apples . . . . .	4.6
Grapes . . . . .	3.8
Oranges . . . . .	1.8

It is seen that these values vary a good deal, the highest being for soft fruits, with the exception of Red Currants and Grapes, the average values for stone fruit, the smaller values for Apples and Pears, and the smallest for citrus fruits. Stiles points out that generally speaking the higher the respiration number the quicker the ripening process, and the shorter the time the fruit can be kept.

Exactly why these differences occur, and what controls them is not yet clear, but we have not hints in the shape of chemical reactions and catalysts, and does not that conception open up the vision of a possible human control through the medium of artificial catalysts?

That this is not an altogether too optimistic viewpoint is evidenced by some recent American work carried out by Denny, who has found that the presence in storage chambers of very small amounts of ethylene gas has a marked effect on the

#### respiration of Lemons.

Four different atmospheres were used, containing respectively 1 part of ethylene in 1,000, in 10,000, in 100,000 and in 1,000,000.

It was found that all these increased the respiration, the effect being greatest at the intermediate concentrations, that the increase in carbon dioxide output ranged from about 100 per cent. to 250 per cent., and that the treated fruit yellowed in about three or four days as compared with a period of one or two months taken by the untreated fruit.

The control of the maturing of fruit by artificial means is, of course, very much a thing of the future, and in the meantime much practical work has still to be done, work such as determining the most

#### economic storage life

of different fruits grown under different cultural conditions, the characteristics of different species, the best time of picking from the point of view of ripeness, the best treatment after picking, the necessity or otherwise of pre-cooling, and many other points of commercial importance.

In regard to such problems as these, it is encouraging to know that Governments as well as private individuals are carrying out original work. At the same time I submit for your consideration that this country needs to carry out more fundamental research as well. Such work is slow, and perhaps is expensive, but is sorely needed. As regards the cold-storage of fruit little has been done, the prospects are good, and at the selling-end the advantages to be won are great. We cannot expect other countries to do the work for us. For one thing they have not the same inducement; they are in competition with us.

Nor is it reasonable to let one small section in Australia carry the burden for the rest. The position calls for

the co-ordinated efforts of all interested: it is an Australian question. Its solution is one of the things that naturally belongs to the work of the Institute of Science and Industry, and would very properly be a matter for the support of the Commonwealth Government. To secure success in the world's markets, demands that we shall attack these questions, and in their solution our economic well-being lies.

#### FRUITGROWERS' COOL STORES ASSOCIATION OF VICTORIA.

##### Quarterly Meeting.

THE quarterly meeting of the Fruitgrowers' Cool Stores Association of Victoria was held at Melbourne on 18th November, 1924.

The President-elect (Mr. R. M. Finlay (Diamond Creek) who was absent from the Annual Conference, was welcomed by the Past-President (Mr. R. Mair) and duly installed. Mr. Finlay suitably responded. There were also present Messrs. C. Wallace Wantirna, W. Mackinlay (Ringwood), J. Stevens (Blackburn), J. W. Barrett (Ringwood), T. White (Somerville), F. Stockton (Tyabb), J. H. Young (Tyabb), J. Tully (Doncaster), W. Lipscombe (Croydon), R. Mair (Tyabb), J. H. Lang (Harcourt), J. M. Watt (Hastings), F. Petty (Doncaster East), T. Cuttle (East Burwood), H. S. Tomkins (Croydon), R. Sutherland (Orchardists' Cool Store, Doncaster), T. Butler (Somerville), P. Rossiti (private store), and the Secretary, Mr. J. G. Aird (Ringwood). Mr. W. James (Harcourt) attended as a visitor.

Apologies were received from Messrs. F. J. Byrne and R. Langley.

The paper by Sir. Geo. Knibbs (Director Bureau of Science and Industry) at the recent conference, aroused considerable interest, in which many appreciative remarks were made about the "Fruit World" as the fruitgrowers' paper. It was moved by Mr. Tully, seconded by Mr. Tomkins, that the President and Secretary get in touch with the Editor of "The Fruit World," with a view of publishing this and other papers dealing with Cold Storage.

##### Deputation to Central Customs.

It was decided that the following gentlemen attend the deputation to central customs re installation of long distance thermometers on ships carrying fruit:—Messrs. J. H. Lang, R. Mair, R. Sutherland, J. H. Young, W. Lipscombe, R. M. Finlay, J. G. Aird, F. Butler, T. White, W. Mackinlay.

##### Royal Agricultural Show.

It was agreed that the scale of points for judging of fruit at the recent Royal Agricultural Show was unsatisfactory, also, judging should not take place until two or three days after the fruit is staged, so as to make sure of the keeping qualities of

the fruit. On the motion of Mr. Lang it was decided that the Secretary write to the cool stores, asking them to forward any suggestions they have for the next Show, and a report be brought up at the next meeting.

**Canning Keiffer Pears.**—Mr. Cuttle (East Burwood) said owing to the large crops of Keiffer Pears this year, his Association had brought this matter up hoping the Cool Stores Association could suggest some means of disposing of the fruit. He thought this was a good opportunity of testing the Eastern markets with canned Keiffer Pears. He was quite prepared to send along a number of cases as a trial. Mr. Stevens said the price of Pears was declining, and if this Association could do something to help these growers it would be very much appreciated. When canned ripe the Keiffer Pear had a beautiful Pineapple flavor.

Mr. Tully moved that this Association recommends to the Central Fruitgrowers' Association, when dealing with the canning of Pears, that consideration be given to the Keiffer Pear. Seconded by Mr. Stevens, and carried.

##### Fumigation of Cool Stores.

Mr. Tully asked if any delegate could advise if it were necessary to fumigate cool stores, and the best method of doing the work.

Mr. Lipscombe said spores of mildew were always left in the stores, and he found sulphur matches had excellent results. He used three matches to 2,500 case chambers, and it killed all living and fungus diseases.

Mr. Lang said lime spray had very effective results.

Mr. Barrett said he preferred sulphur, because sulphur got into the ducts, which could not be reached with whitewash.

Mr. Tully thanked the delegates for the information supplied, and thought it would be to their advantage to fumigate.

##### New Minister Congratulated.

Mr. Lang moved, and Mr. Tully seconded, that this Association write to the Minister of Agriculture (Mr. Bourchier) congratulating him on his appointment. Carried.

##### Fruit Packing Classes.

Mr. Lang moved that this Association desires to express its approval of the action of the Department of Agriculture in forming classes in fruit packing for the school children in the fruitgrowing districts, and recommend—

- An extension of the system, as facilities are available to embrace all fruitgrowing districts in the State.
- The issue of a certificate of competency to all, who reach an approved standard.
- That £50 be voted to provide prizes at district shows for fruit packed by members of these classes.

#### The Advantages of Keeping Apples and Pears in Different Chambers.

Mr. Tully asked if there were any advantage in keeping Apples and Pears in different chambers. Mr. Lipscombe said it was necessary to have different chambers, with insulated partitions, because Pears must be brought down to the required degree as quickly as possible, whereas if Apples were in the same chamber this would be detrimental, as Apples have to be brought down very slowly. This matter will be further discussed at the next meeting.

The meeting then closed.

#### FLOWERS AND FRUIT FOR HOSPITALS.

It is hoped that with the approach of the festive season, flowers, fruit, etc., will be forthcoming from country residents in response to the appeal made by the Canterbury and District Horticultural Society (Vic.), details of which were published in our November issue. Attention is directed to the necessity for flowers in hospitals at Christmas time, when prizes are given for the best decorated ward at all hospitals. "Yellow Boxes" are available on request, the idea being that these boxes may be fitted with flowers or fruit and transported free over the railways to any hospital.

The Secretary, Mr. H. A. Howard, of 13 Cross-street, Canterbury (Vic.), is anxious to hear from someone who will take a "yellow box" for St. Vincent's Hospital, Melbourne.

#### A NEW PEACH.

A new Peach has been introduced by Mr. J. W. Mowat, of Kyabram (Vic.), who states that its canning qualities will put many clingstone varieties in the background. In this connection it had a severe test last season, and gave excellent results. As regards its quality for drying purposes, this variety received first prize at the recent Kyabram Fruit Show. It is also a very choice dessert Peach, being fairly large, but, if desired, can be reduced by heavier cropping. The colour, which is very high, is rich all round, and the Peach will hang on the tree until ripe and not fall. The fruit lies close to the twigs, with very short stems. Mr. Mowat has not yet decided on the name for this particular variety, which has been raised from a seedling. An application is being lodged with the Nurserymen and Seedmen's Association of Victoria for an Award of Merit.

Truth is our only armour in all passages of life and death.—R. W. Emerson.

## Fruitgrowing under Irrigation

FUNGOID DISEASES

DRYING APRICOTS

CULTURAL NEWS AND NOTES

(By our Special Correspondent)

### FUNGOID DISEASES.

THE MONTHS of October and early part of November have been ideal for the growth of fungoid diseases. The weather has been more or less humid with thunder showers. Black Spot and Oidium of the vine have been reported from many vineyards, spraying and sulphuring have been the order of the day.

For the control of Black Spot growers have been using bluestone mixtures, both Bordeaux and Burgundy, as well as proprietary mixtures.

Though early to advise growers, the importance of the winter treatment cannot be too strongly stressed. Many plant diseases take about two years to work up into a virulent form. Should weather conditions favour the development of the spot next spring growers who have not taken the necessary precautions to prevent the spread of the disease, may expect a much more severe attack than that experienced this spring. "An ounce of prevention is worth a pound of cure."

The Oidium is always more or less in evidence each year; whereas Black Spot and Downy Mildew require free moisture for the spores to germinate in; Oidium spores can germinate when the air is humid.

Sulphur is the universal remedy for Oidium. Unlike the two fungoid diseases just mentioned, which are internal diseases, Oidium grows on the exterior of the epidermis of the plant. This being the case, it can be checked during any period of its growth.

Either flowers of sulphur or lime-sulphur spray may be used as a controlling agent.

Do not heavily sulphur on a hot day, as the foliage with which the powder comes in contact may be burned. A light sulphuring is all that is required, a few puffs into the vine with a sulphuring machine, or a shake of the jute sulphuring bag over each vine will be sufficient to control the disease.

If the lime-sulphur spray is used, take care not to use the spray too strong; follow out the directions carefully for summer strength solution.

Should further humid or wet conditions be experienced during the summer months, control measures will be necessary to prevent the spread of the diseases.

### DRYING APRICOTS.

DURING DECEMBER the Apricot grower thinks of his drying plant, as operations usually commence during the latter part of the month. Liberal supplies of sulphur will be necessary to treat the very heavy crop that is showing on the trees. Care should be taken if fruit is to be dried whole, to dry only the largest. Small whole dried Apricots are little else but skin and stone, or appear so when finished. The whole dried fruit is doubtless the best quality, but the sales have been somewhat slow, this is probably due to various causes.

The public need educating up to the use of the whole fruit; growers have often dried the small fruit whole, because it is costly to split, thus losing the confidence of the buyer by putting up an inferior article. The colour of the whole dried fruit has in the past been very indifferent, many shades from bright Apricot to almost black being placed on the market.

To gain the confidence of the consumers, every care must be taken to place the best coloured, high flavoured, and fleshy fruit before them, and having gained that confidence to exercise every oversight to keep it.

Some driers are able to keep a good colour in the whole fruit by heavy sulphuring, then placing the fruit in the stack for the first few days of drying. This is particularly necessary when the sun is very hot, as the skin is liable to blister if the fruit is subjected at once to the fierce rays of the sun.

The fruit may be turned out a nice bright colour by first immersing it in a boiling lye, 1 lb. of caustic soda to 30 or 40 gallons of water, for a couple of seconds.

The fruit is then either rinsed in cold moisture to remove the superfluous caustic soda, or is placed directly on the drying tray. When placing whole fruit on the drying tray, whether it is dipped or not, care should be taken to see that the fruit is placed on its side. When placed in this position, the finished article is of good shape, whereas if placed on base or apex the fruit is always more or less an irregular shape when dried.

In the latter instance the stone often pierces the skin during the drying process, and protudes through the finished fruit. This gives the dried product a more or less ragged appearance.

After the fruit is dipped and spread on the trays, it is then placed in the

sulphur house or box, and subjected to the fumes of sulphur for several hours. Sulphuring can be overdone, especially with dipped fruit, the minute cracks in the skin allowing the flesh to absorb much sulphur.

Sulphuring should be complete in 6 to 8 hours, according to the weather; on hot sunny days fruit sulphurs more quickly than on cool days. Dipped fruit may be placed straight out in the sun, as there is no danger of the skins blistering.

When the fruit is to be split, the halved Apricots should be placed on the trays with the cups uppermost. The fruit laden trays should be placed in the sulphur house.

If some delay has occurred between the time the fruit was pitted and placing it in the sulphur box, and the cut surface has become somewhat dry, the fruit should be sprinkled with water to moisten it before subjecting it to the sulphur fumes.

The fruit is left in the sulphur fumes until sufficient juice has exuded to nearly fill the cups.

Do not sulphur until the juice overflows, as the fruit not only sticks to the trays as the moisture evaporates, but loss of weight occurs through the loss of sugar and other solids in the juice. The fruit is often torn in removing it from the sticky trays, thus giving the finished product a ragged appearance.

### CULTIVATION.

Cultivation is the keynote of success in the irrigated areas, consequently keep the scarifiers moving, in order to destroy weeds and to conserve moisture.

### OBITUARY.

We regret to record the recent death of Mr. T. A. Frankcomb, of Ranelagh, Tasmania, which occurred at Fremantle en route for his home, after a six months' health trip to England. It was hoped that the change would have been beneficial to Mr. Frankcomb, but on breaking his journey at Fremantle for a week's rest, an operation was considered necessary, and after lingering for a short time, Mr. Frankcomb passed away.

The loss of such a prominent citizen has cast a gloom over the whole of the Huon. Mr. Frankcomb led a very busy life, and was keenly interested in all public affairs. Before commencing fruitgrowing, he served several years at the engineering trade, which probably accounted for the instalment of all the latest machinery for agricultural operations in his orchard. The orchard, which is known as "Clifton" is generally known as the "model orchard" in the Huon district, it being one of the most scientifically cultivated and profitable orchards in Tasmania. The late Mr. Frankcomb was a large-hearted pioneer. His death is a loss not only to Tasmania but to the Commonwealth.



## A.D.F.A. ACTIVITIES.

THE Australian Dried Fruits Association has some interesting news to make public—thus:—

Our display at Wembley has been an unqualified success—a wonderful advertisement with the most powerful of all types of advertising appeal.

There the visitors from every country in the world, and every part of the Empire saw the dioramas, heard the lectures and demonstrations, and tasted our product on the spot.

But Wembley is over—for the time being at any rate.

Whether the Exhibition is re-opened or not in 1925, ours is the abiding satisfaction of knowing that our dried fruit (the "Sun-Raysed" A.D.F.A. Brand) received invaluable publicity, and made the acquaintance of hundreds of thousands of British housewives, in all probability for the first time.

One of the most brilliantly conceived publicity efforts on the part of our London staff was the sending of a souvenir box of "Sun-Raysed" dried fruits to the editor of the "Morning Post," one of London's leading dailies.

The editor acknowledged the box in a leading article, "Won't You Buy?" The most immediate result of this article was that our manager for the United Kingdom (Mr. W. P. Caro) was "snowed up" with hundreds of letters from all over England.

The article certainly contained a dignified and powerful appeal to the British public, but the response was so whole-hearted and open-hearted that any doubts (if there were any) on the part of Association growers, as to the attitude of the British public to colonial-grown produce and "Preference," will be removed by these letters.

From some of them it is quite evident that the average Britisher's love of the "fair play, that's bonnie play," was deeply stirred and resentment is shown at the way the game was played by the late Government over the preference proposals.

Here are a few of hundreds of letters received by A.D.F.A. London office at "Australia House." They are typical:

"I was much impressed on reading the first leading article in the 'Morning Post' of 21st August; the title of the article being 'Won't you Buy?' I would esteem it a favour

## THE "Sunraysed" Courier

The importance of the dried fruits industry is being more fully realised by the general public of Australia. Our young nation has much at stake in relation to this industry—irrigation, repatriation, decentralisation and immigration. These great truths are being surely carried home to the people through the publicity work of the Australian Dried Fruits Association.

A most important enterprise has just been commenced by the A.D.F.A., viz., the issuing of news of a bright readable character to the press. The Association may be assured of the ready assistance of the press in providing space for literary efforts of this nature. Thus will the public be enlightened as to what is transpiring, and the growers, many of whom are fighting a splendid battle, will be heartened and encouraged.

The "Fruit World" is glad to be of service in this matter—not only to print the news from official sources, but also acknowledge and publish letters from growers and all interested.

In future this section of the "Fruit World" will be known as "The Sunraysed Courier."

The Editor.

on your part if you would be so kind as to send me any list which may be issued by the Australian Dried Fruits Association, as to prices for such dried fruit; if I could buy such as one who can only do so on retail. I feel very strongly indignant at the conduct of this country in not giving every possible preference to our great Dominions. We are, I think, rightly spoken of as a nation that helps her enemies, and turns her back on her relations and friends."

"I am hoping next month to do my own housekeeping in my own home. Please let me know how I can get my supplies of dried fruits from the A.D.F.A. I rejoiced to learn from the 'Morning Post' that there was such an organisation, and that English housewives are being given a chance to 'efface the wrong done to their own folk.'"

"The Countess of \_\_\_\_\_ will be much obliged if the A.D.F.A. will send her to above address particulars of the dried fruits, etc., they supply, with prices, if possible."

"I read the leading article in the 'Morning Post.' Can you send me full instructions as to how to buy your Australian dried fruits, and I will do my best to get people here to buy them. I am on the propaganda job for the Conservatives, and mean to do my best."

### Great All-Australian Exhibition at Melbourne.

This Exhibition finished up after two months with a packed house on Saturday evening (8th November) and the "Sun-Raysed" stall in Sixth Avenue did record business.

Our display was in an excellent position in the Avenue, leading from the main entrance to the arena, and practically every one of the half a million people who visited the Exhibition in the two months, passed our stall, either coming in or going out.

The sales, which averaged 343 3d. cartons daily, or a total of 16,800 odd, and 15 cwt. of stone fruits in 6d. sample packets, can be considered excellent in view of the innumerable lines on sale at other stalls. Thousands of recipe books were also distributed.

### Souvenir "Xmas" Box.

Although the Xmas Box idea was almost a last minute decision, the results are gratifying. The totals sent by the Xmas mail are 1,200 at 5/-; 200 at 10/-; and 30 at £1.

The letters received both at London office and head office, acknowledging Souvenir Boxes, show that our fruit has met with appreciation everywhere. The few letters given will serve to show growers that the market is there for good quality fruit, well-cured and attractively packed.

Not only from this point of view are our opportunities good, but buyers of the "Sun-Raysed" brand, with the added stimulus of colonial friendships and relatives, and a strong Empire sentiment, will be legion.

From now onwards these "friendly" purchases will increase and must be cultivated. We do not intend to let this opportunity slip by—the Association is availing itself of every avenue that leads to development of our trade with British Housewives.

With this end in view every one of these hundreds of letters received has been answered with a personal letter from our London headquarters. The following are representative:—

"I am much obliged to you for the nice sample lot of dried fruit which you sent to me. We shall be pleased to recommend them to our friends, and when buying future supplies will be particular to ask the grocer for your brand. We believe in trading in our own Empire with our kith and kin beyond the seas, and wish you every success in your business."

"I take this opportunity of recording my appreciation of your goods. I was given to understand that they were a real improvement on other lines, but I must say your lines far exceeded my expectations, and I shall always make it my business to recommend them to my friends, for I am sure they have never been able to secure fruits of such wonderful quality and taste."

#### Window Displays in Melbourne.

The total number of displays of "Sun-Rayised" fruits in retail shops in Melbourne and suburbs to date is 40.

The average time taken up by each display was three weeks, and the area covered included 24 different suburbs.

Very favourable reports have been received from all the retailers who availed themselves of our window display service, which is in the hands of one of the best window-dressers in Melbourne.

The originality of the design and artistic get-up of the whole display, combined to give it all the attention, arresting power, that could be desired, while the value as a selling force was reflected in the sales made by each retailer.

It is the object of our retail services to gain the confidence of retailers, to break down a certain amount of antagonism that has grown up in recent years.

This is being accomplished by personal visits to every retailer handling our products.

Not only is the quality and economy of "Sun-Rayised" fruits stressed, but the whole policy of the Association is outlined and explained, and invariably the retailer has expressed his appreciation of these conversations. They have cleared up many misunderstandings, and given him an entirely new conception of the A.D.F.A., and the sterling work it is doing on behalf of one of the most important of Australia's national industries.

The following is typical of a number of letters that indicate the selling power of display advertising, and also the fact that a considerable increase in consumption is possible:—

"Re your enquiry form for sales of fruit, I regret to say that I have destroyed cards containing records of our sales, but I have filled in form showing how sales were made, also have enclosed list of our purchases and remaining stocks for the season to date,

but we anticipate a good sale for the next few weeks:—

	Purchases.	In stock
	28lb. Boxes	28lb. Boxes
Apricots . . . . .	35	6
Peaches . . . . .	15	3
Pears . . . . .	10	1
Prunes . . . . .	56	16
Nectarines . . . . .	20	1
	56lb. Boxes	56lb. Boxes
Currents . . . . .	10	½
Sultanas . . . . .	15	½
Lexias . . . . .	6	2
Seeded Raisins . . . . .	6	½

"The display and demonstrator, to my mind, had a very marked effect on sales, which have been trebled."

In future the retailer will be assisted more than ever before, as he is not only the most numerous, but probably the most important distributing link between the grower and consumer.

The "Sun-Rayised" retail services are fast regaining his confidence and co-operation, and the motto of this branch of the Association's activities is this definition of co-operation:—  
"Co-operation is the art of so conducting oneself that others can work with you."

#### London Market Quotations.

The latest quotations from our London Office as at 1st November, 1924, are as follows:—

**Sultanas**.—Firmer, 46/- to 50/-. Sales for last fortnight approximately 1,500 tons.

**Currents**.—Slightly firmer, 40/- upwards.

**Lexias**.—Weak, 26/- to 40/-. . . .  
These prices are per cwt., duty paid.

#### Commonwealth Sales.

The Commonwealth Sales to the end of October are as follows:—

**Currents**, 1,988 tons; **Sultanas**, 3,723 tons; **Lexias**, 1,060 tons.

#### Overseas Shipments.

Of the fruit shipped to London, the latest cable advices indicate that the following percentages have been sold:

**Currents**, 75 per cent.; **Sultanas**, 65 per cent.; **Lexias**, 32 per cent.

#### A.D.F.A. COUNCIL.

THE second annual meeting of the Federal Council of the Australian Dried Fruits' Association was held in Adelaide from October 29th to November 1st. Mr. T. C. Rawlings (Mildura) was elected chairman of the Council. The following growers' representatives attended:—

**South Australia**.—Messrs. R. C. G. Frankel (Cadell), H. D. Howie (Renmark), C. A. L. Morant (Renmark), J. B. Murdoch (Waikerie), J. Victorson (Clare), A. P. Wishart (Berri).

**Victoria**.—Messrs. T. C. Rawlings, E. J. Casey, H. R. Sloan, E. J. Roberts and M. Young (Mildura), J. Gent (Nyah), H. Goodman (Woorinen), G. E. Kitchen-Kerr (Red Cliffs), L. G. de Garis (Mildura).

**New South Wales**.—H. G. Such.

**Tasmania**.—Capt. Newman.

The Agents' representatives on the Council were—Messrs. G. A. Caro, D. F. Brazel and H. W. Newton, and the following Agents' representatives were present as visitors:—Messrs. A. Broad, T. E. Crompton, E. Richards and H. T. Shepley. Other visitors to the Council meeting were—Messrs. Geo. Quinn (S.A. Dept. of Agriculture), and W. J. Allen (N.S.W. Dept. of Agriculture).

#### Export Control Bill.

The Chairman of the Board of Management of A.D.F.A. (Mr. Howie) said that the Dried Fruits Export Control Bill would meet the position on the London market. He suggested that as the bill would be submitted to the growers, the Council should express its opinion, and after discussion the following motion was passed:

"Whilst appreciating very greatly the assistance the Federal Government has given, and intends to give the Australian Dried Fruits industry, this Council feels that the measures adopted are not at present adequate to meet all the difficulties confronting the industry, especially in regard to the Commonwealth market, but strongly recommends growers to accept the Export Control Bill when a poll of growers is being taken."

#### Compulsory Pools.

A motion dealing with the creation of compulsory dried fruits pools in the producing States was submitted from the Victorian State Conference of the A.D.F.A. It was stated that on the occasion of the visit of the Victorian Minister of Agriculture and Markets (Mr. Hogan) recently to Mildura, a mass meeting of growers asked for a compulsory pool for dried fruits. Other representatives explained that the situation on the Australian market would be adequately met by legislation for the compulsory registration of all sheds packing dried fruits for sale, and for the declaration of an obligatory export quota.

At a later stage in the proceedings the Minister for Agriculture (the Hon. T. Butterfield) attended the Council meeting and explained that as he was proceeding to a conference of State Ministers of Agriculture in Melbourne, he desired to obtain first hand information from the growers on the state of the industry and on the form of assistance that could be given by the various Governments to growers.

On behalf of the Council it was explained that it represented approximately 90 per cent. of the estimated output of dried fruits in the Commonwealth.

Mr. Butterfield was informed that the position of the Australian market was adversely affected because a number of growers outside the ranks of the Association sold the whole of their crop in the Commonwealth, and allowed the whole responsibility for export at the present unpayable prices to fall on the Association grower. At present the Association

growers were obliged to export approximately 80 per cent. of their crop, and to bear the whole of the cost of publicity on the Australian market, whereas the "outsider," through his ignoring the export responsibility, sold all his crop in Australia. The position could not continue as at present, and unless the Governments concerned took active steps to ensure that every grower received his share of the Australian market, the industry would become disorganised.

The situation as regards returned soldier growers was also explained to Mr. Butterfield. In one district alone—the Red Cliffs Soldier Settlement—the Australian output would be increased by nearly 5,000 tons next year, and by approximately 12,000 tons in the following season. If the Australian market was not placed on a satisfactory basis, these new growers could not receive a payable return for their crop, and the Government that settled so many returned soldiers in the dried fruits areas would be faced with a huge loss on closer settlement and irrigation work, and with the responsibility for the position in which these settlers would find themselves. The A.D.F.A., as a voluntary organisation, had been able to control the situation when the export quota had been only 20 per cent., but now that the proportions for Australian consumption and export had been reversed so that chiefly owing to the big increase through soldier settlements 80 per cent. were exported, some form of compulsion as regards the export quota was urgently needed. The resolution of the Council on the matter of the compulsory pool, and the obligatory export quota was then submitted to Mr. Butterfield.

"That the State Governments concerned be requested to enact legislation with the main objective of securing for the growers of dried fruits, with the exception of Prunes and dried Apples,

- "(a) An equal share of the protected Australian market to all growers by means of a prescribed export quota.
- "(b) The licensing and strict inspection of all packing sheds.
- "(c) The institution of a vigorous publicity campaign with a view to increasing local consumption of dried fruits."

Mr. Butterfield, in reply, thanked the Council for the explanations that had been given him, and reminded growers, and particularly soldier growers, that the State Cabinet fully realised its responsibility in the matter owing to the huge sums that had been expended in soldier settlement. He assured the Council that the position in the industry would receive his earnest consideration, and that at the meeting of Ministers in Melbourne the views of the growers at the Council meeting would be fully repre-sented.

#### Chairman's Report.

The Chairman of the Board of Management of the A.D.F.A. (Mr.

Howie) presented the report of the Board on its work for the year. He said that the Board of Management had been fully occupied in its last term by the need for presenting the case for the growers to the Federal Parliament. Although the efforts of the Board had not been wholly successful, three different measures—the Canadian Reciprocal Trade Treaty, the Dried Fruits' Advances Bill, and the Export Control Bill—had been passed by the Federal House in the last two months. From this the Council and growers could realise the tremendous amount of work that had been done by the Board. Mr. Howie said that he wished to express appreciation on behalf of the Board of the assistance that had been given by the Prime Minister (Mr. Bruce) and by Mr. P. G. Stewart, and Mr. Gabb, in the House of Representatives.

A motion adopting the chairman's report, and expressing the thanks of the Council to the Chairman and other members of the Board was then carried.

## QUALITY DEHYDRATORS

J. H. MORTON, A.M.I.M.E.  
Consulting Industrial Engineer

Bank of N.S.W., SYDNEY, and  
369 POST OFFICE PLACE, MELBOURNE

Inventor-Designer  
WORLD RENOWNED

### "Morton Efficiency" Dehydrator

(By Royal Letters Patent)

(Adopted after elaborate Official Tests  
by H.M. Imperial Govt.)

Consultations and Reports on EVERY  
DESCRIPTION of DRYING APPLIANCE.

Write NOW!

#### The Fruit Grub.

Recommendations of the Victorian State Conference to the effect that the Board be instructed to investigate suggestions for the elimination of the fruit grub, and that the Federal and State Treasurers be asked to give financial help to the Bureau of Science and Industry to assist the Mildura Research Farm in grub research work, were carried.

#### Imperial Preference Urgently Needed.

After further reference had been made to the assistance that had been received from the Federal Government, the following motion was passed:

"That the Federal Council of the A.D.F.A. desires to record its appreciation of the efforts being made by the Federal Government to assist the dried fruits industry. The question of reciprocal tariff arrangements are of vital importance to the industry, and growers are delighted that the

question of preference with Canada is almost an accomplished fact. It is hoped that the Government will be able to finalise the question of preference on dried fruits with New Zealand at an early date. The outstanding feature of preference to the industry, in the opinion of growers, rests with Great Britain, and this Council urges the Federal Government not to relax the efforts to bring about the preference promised by the Baldwin Government, also that this Federal Council expresses its thanks to the Commonwealth Government for the recent advance it has made to growers, and also expresses a hope that the serious position of the Dried Fruits industry warrants it giving this question serious consideration in the Government's future policy."

#### Other Matters.

Other matters dealt with were:—Representation of the various districts on the Federal Council; Recommendation with regard to the fixing of the standards of dried fruits, and the ascertaining of the sugar and moisture contents of dried fruits; Marking of boxes for export with the words, "Product of Australia."

#### Election of Officers.

The election of the Board of Management for the next term resulted as follows:—Messrs. H. D. Howie (Renmark), J. B. Murdoch (Waikerie), T. C. Rawlings (Mildura), J. Gent (Nyah), and G. E. Kitchen-Kerr (Red Cliffs). Mr. H. R. Sloan, retiring member of the Board, did not accept nomination. At a preliminary meeting of the Board, Mr. H. D. Howie was unanimously re-elected Chairman.

## DRIED FRUITS ORGANISATION.

A largely attended meeting of fruitgrowers of Cullwaa and Pomona was held at Cullwaa, N.S.W., on November 17th. Mr. L. McLeod presided. After considerable discussion, the following resolution was announced as carried:—"That this combined meeting of the Cullwaa and Pomona Settlers' Association expresses its entire lack of confidence in the administration of the dried fruit industry by the A.D.F.A., as at present constituted. It appreciates the recommendations put forward by the Conference recently held at Melbourne by State representatives from Victoria, New South Wales and South Australia for the reorganisation of the dried fruit industry, and records its emphatic opinion that no time should be lost in the New South Wales Government giving its confirmation to these recommendations, and in common with other States, passing legislation forthwith to give effect to them. It claims the right to appoint the three growers' representatives to serve on the State Board provided for in the said recommendations, on the grounds that the settlements of Cullwaa and Pomona form the most important section of the dried fruit industry of New South Wales."

**"REORGANISE THE A.D.F.A."**

A correspondent, signing himself "Pomona Grower," has written at length on the dried fruits situation. The letter came just too late for publication in full; the following is a summary:—

"Pomona Grower" states that the 8,000 growers who are to be invited to record their views on the dried fruits export act are in effect shareholders in a great industry which is controlled for the most part by a directorate of the A.D.F.A., who are privileged to represent capital running into some millions. "Pomona Grower" states that many shareholders are far from satisfied with the present management, and that growers should put "service before profit," securing best coloured fruit, and that this should be properly graded and rigidly inspected. Each packing shed should be served by qualified inspectors, all high grade fruit should be marketed under an attractive registered band; growers should insist that the A.D.F.A. be reorganised and cleansed in order to be responsible for the distribution of dried fruits through trade channels. The industry is worth saving.

**MARKETING DRIED FRUITS.****Victorian Bill Being Drafted.**

The recent Labour Government in Victoria, which favoured a dried fruit pool, having been displaced, the new Government is now drafting a bill to provide for the marketing of dried fruits in the coming season. The Premier, Mr. Allan, stated that he could not give the details of the measure, but it would be based largely on the recommendations of the conference of representatives of various State Ministries which met in Melbourne recently. The conference suggested the creation of State Boards to Control the marketing of the fruit, and advocated that the boards should be empowered to purchase any quantity of fruit at export parity if the growers of the fruit refused to agree to the decisions of the Boards regarding the quantity of fruit to be allocated to the Australian market.

**A.D.F.A. Publicity.**—The Spring Horticultural Trade Exhibition was held at Melbourne on November 5, 6, and 7, this being the most comprehensive display of horticultural exhibits ever seen in Melbourne. An educational exhibit was put up by the Australian Dried Fruits Association. Demonstrations were given in the art of preparing dried fruits for the table, and lectures on fruit and health were delivered each day by Mr. W. Alan Edmunds. The Association's exhibit and the health talks were keenly appreciated by the public, and won many appreciative press comments.

**New South Wales****DISTRICT NEWS AND NOTES****CROP REPORTS****Fruitgrowers' Federation.****Meeting of Board.**

A meeting of the Board of Management of the Fruitgrowers' Federation of New South Wales was held at the organisation's headquarters, Sydney on November 13th. The President (General Heane) occupied the chair, those present being Messrs. Nicolson, Wark, Coulson, Smith, King, Such and McMahon, states the "Farmer and Settler."

**Dried Fruit Export.**

The Griffith Producers' Co-op. Co. submitted a recommendation that the State Government be urged to enact legislation to secure to growers of dried fruits an equal share of the home markets by means of a compulsory export quota; that packing sheds be licensed and inspected and that a publicity campaign be inaugurated to increase consumption.

Mr. Such explained the position of the dried fruits' growers and said that it was a vital matter for those settlers on the Murrumbidgee Irrigation Area who were planted up with Sultanas. The federation would have to say whether it would act to support any one particular district as against the whole state. There had hardly been a dissentient voice among growers against a compulsory export quota. The conference held in Victoria last week to consider the question had made a report on the situation, which was now before the Ministers. He moved that the federation supports the request that the Government bring forward immediately legislation to give effect to the wishes of dried fruit growers on the basis suggested by the Griffith Co-op. Co.

The motion was seconded by Mr. Smith, and carried.

**London Representation.**

Mr. A. J. Arnott, who represented the federation at the Imperial Agricultural Conference held in London during the Wembley Exhibition, furnished a report of his activities. Mr. Arnott was thanked for his efforts.

**Plant Diseases Bill.**

It was decided to press the Minister to have this Bill put through Parliament before the end of the year. It was also decided to suggest to the Minister that a clause be included to compel nurserymen to set aside a certain area to propagate true to name fruit trees.

**A.W.U. Log.**

The Secretary reported that the federation's solicitor had recommended them to serve a counter-log on the union in order to combat their demands. The solicitors recommendations were set out in detail.

General Heane said that it had been

suggested that instead of a levy being fixed for a fighting fund, a fee be fixed and only those who paid be included in the federation's case against the union. Those that did not pay would have to fight on their own account.

This proposal was generally endorsed and it was pointed out that those who did not fight would probably lose the benefit of the many exemptions that the federation would be able to gain for those for whom it appeared.

Mr. Coulson moved that when the secretary obtained the names of the growers cited, he should place the case before them and ask for a preliminary contribution of not less than 30/- each towards the fighting fund. This was seconded by Mr. King and carried.

**Advertising Campaign.**

Mr. Such referred to the extensive advertising campaign carried out by the Victorian Railways. The N.S.W. Railways had agreed to exhibit posters free, but the growers would have to pay cost of printing.

The urgent necessity for an advertising campaign in New South Wales was stressed. It was decided to approach the fruit agents with a view to their co-operation to secure a deduction of 1d. per case from account sales for advertising purposes. The following committee was appointed to interview the agents:—Messrs. Heane, Coulson and Nicolson.

**Fruit Fly.**

The secretary referred to the action of the Victorian Government imposing a quarantine on N.S.W. citrus fruit exported to that State on account of the danger of fruit fly. He said that he had taken what action he could, but it was not a great deal.

Mr. Coulson said that the Victorians were justified in trying to protect their orchards, but they overlooked the fact that they had fruit fly themselves. They only took action when N.S.W. Oranges affected the price of theirs on the market. He moved that while the federation approves of reasonable protection, it deemed the Victorian action too drastic; that the regulations governing importation of fruit from New Zealand would be satisfactory and that these be made to apply in the case of Victoria. He pointed out that New South Wales could retaliate in regard to Victorian Peaches, which also were affected with fruit fly. This was seconded by Mr. Wark, and carried.

General Heane moved that the department be asked to make it compulsory for orchardists that have Loquat trees to pull the fruit, as has to be done with Sevilles, before a date to be fixed. This was seconded by Mr. King, and carried.

**Curlwaa Irrigation Area.**

The N.S.W. Minister for Agriculture (Mr. F. A. Chaffey), who is Chairman of the Water Conservation

and Irrigation Commission, has made available the following statistics of development in regard to the Curlwaa Irrigation Area for the year ended 30th June, 1924, as compared with the year ended 30th June, 1923. These statistics have been compiled from returns obtained from the settlers:—

	Year ended 30/6/24	Year ended 30/6/23
Value of Production	£56,951	£37,380
Dried Fruits of all kinds	£13,509	£17,278
Fresh Fruits of all kinds		
Crops, Livestock, Honey, Home Consumption, etc.	£5,223	£4,240
	£75,683	£58,898

	Year ended 30/6/24	Year ended 30/6/23
Area Occupied	Acres	Acres
Irrigable	1844	1844
Dry	7669	7692
Area Planted	1164	1117
Area in Bearing	890	868

#### Griffith.

The following is a list (supplied by Mr. H. G. Such, General Manager of the Griffith Producers' Co-op. Co. Ltd.) of the principal fruits, and varieties of some growers, in the Mirrool section of the Murrumbidgee Irrigation Areas. Crop anticipations are quoted in parenthesis:—

**Peaches.**—Pullars' (medium), Golden Queen (heavy), Californian (heavy), Elbertas (medium).

**Apricots.**—Trevatt, Moorpark, Mansfield (medium).

**Prunes.**—Robe de Sargeant, D'Agen (medium).

**Citrus.**—Nnavels, Valencias. Too early to state, but apparently medium to heavy.

**Grapes.**—Table: Cornichons, Ohanez (medium).

**Grapes.**—Wine: Doradillos, Pedro, Shiraz, Reisling, Grenache (heavy).

**Pears.**—Williams', Packham (heavy).

**Apples.**—Granny Smith (heavy).

Speaking generally, the indications are for medium to heavy crops, of all kinds, and varieties are undoubtedly much heavier than last year when Citrus, Apricots and Peaches were on the light side.

#### Compulsory Export of Dried Fruits.

The growers of this district have been giving considerable attention to the coming situation in respect to dried fruits which, so far as the vine fruits are concerned, appears to offer little prospect of profit under the present methods. Apricots also, which are heavily grown at Griffith and Yenda, present a problem of some magnitude.

The disorganisation of the dried fruit growers, partly due to "outsiders," appears to the growers of this district to call for compulsory regulations of export so that those growers who have organised themselves to

work in unison for the best interests of the industry shall not be penalised by having their fair share of the Australian market filched from them.

At meetings held at Griffith and Yenda it was decided to ask the N.S.W. Government to enact legislation, which would have the effect of necessitating the export of a certain proportion of each growers' fruits, thus leaving the home market with sufficient supplies to fill its requirements, but no surplus which would permit of the unlimited price cutting which is going on at present.

#### Batlow.

The fruit crop in the Batlow district is anticipated by Mr. N. H. Case to yield double that of last season, when the approximate yield was 50,000 bushels of Apples and Pears, and 50 tons of Prunes. The total acreage under fruit last season was approximately 2,000, being chiefly from 6 to 10 years old.

The cool store, while handling only a small quantity of fruit, owing to the light crop, has had a most successful season.

The condition of both Apples and Pears on removal has been excellent, and there has been almost an entire absence of scald. A further extension is contemplated in the near future.

The Packing Co., during its initial season, has experienced the difficulties inseparable from the beginnings of such a venture. The shareholders, however, are convinced that the proposition is a sound one, and additions, including considerable extension of the shed and the installing of a large capacity grader and sizer, are in hand. The estimated pack for the coming season is 80,000 cases.

#### Goulburn District.

Mr. A. Goodhew writes as follows:—The principal fruits grown are Apples, Pears, Cherries, Apricots and Plums. The crop prospects for the coming season are:—Apples, extra heavy; Pears, good; Cherries, the heaviest crop for 16 years; Apricots and Plums, good. The two last-mentioned fruits show indications of a yield about four times as heavy as last season.

The area under fruit in the Goulburn district is 1,000 acres. For the first time, the black aphis has made its appearance on Cherry trees this year.

**Prize for Chevrolet Car.**—At the Murrayville (Vic.) Show held recently the Chevrolet was awarded the first prize as the most suitable car for the district. As the Show Committee had taken special pains to secure a judge who was not prejudiced in favour of any one of the competing cars, Chevrolet distributors are naturally much pleased with the verdict.

#### Citrus Notes.

##### ORANGES TO UNITED KINGDOM.

###### Victorian Exports in 1924 Season.

The following is a table setting forth details of the exports of Victorian Oranges to London in the 1924 season (June to October):—

"Esperance Bay," 700 cases; "Moreton Bay," 1,148; "Jervis Bay," 1,515; "Largs Bay," 1,140; "Hobson's Bay," 360; "Esperance Bay," 129. Total, 4,992 cases.

###### Western Australian Orange Export.

The following particulars are to hand from Mr. G. W. Wickens of the W.A. Department of Agriculture, showing the number of cases of Oranges which have been exported from Western Australia to England this season (July to September):—Esperance Bay, 5,018 cases; Moreton Bay, 3,244 cases; Jervis Bay, 1,802 cases; Sophocles, 307 cases; Largs Bay, 332 cases.

###### American Orange Exports.

According to a statement issued by the United States Department of Commerce, Washington, there is a marked increase in the demand for American Oranges, states Messrs. Newton and Du Toit's "Fruit and Produce Export News." Exports from July 1, 1923, to March 31, 1924, totalled 1,693,000 boxes against 1,131,000 boxes during the corresponding nine months of the previous season. A notable feature in the trade is the increase in exports to the United Kingdom, which market took 41,000 boxes during these nine months, as compared with only 16,000 boxes during the corresponding previous nine-month period. This increased demand is due in a great measure to the fact that American Oranges are being delivered in British markets in better condition than are the Spanish Oranges. It is believed that the demand for American Oranges in the British market will continue to increase as shippers learn of the advantages.

**Orchard for Sale.**—We are asked to announce that satisfactory arrangements have been made for the management of the greater part of the extensive "Elinora" Orchards at Wheeler's Hill, Vic. (as described last issue), and it has now been decided to sell about forty acres of ten-year planted trees, including export varieties of Apples and Pears. The orchard is within carting distance of Melbourne, and is near a local station for despatching export fruit. The orchard is well planted in good soil, and in picturesque surroundings. Local land values are rapidly rising. For price and full particulars, apply to Mr. Sidney Stott, 91 William-street, Melbourne.

## Victoria

### CROP PROSPECTS.

#### District News.

#### Doncaster.

#### Light Crops Expected.

Mr. A. F. Thiele, of Doncaster, writing under date 13th November, reports as follows:—

The principal fruits grown are Pears and Peaches, the latter being extremely light in all varieties. On the whole, the Pear crop will be light, also Plums. Cherries and Loquats have been a failure this season as far as Doncaster district is concerned, the trees having bloomed well, but failing to set the fruit. This was due to the excessive rain. Apples are promising well, although these have not been planted very extensively.

Ploughing is very much in arrears, owing to the wet season, and many orchardists have not yet commenced operations in this connection. Should the rainy weather continue, it is the general opinion that Black Spot and Brown Rot will do considerable damage. The consensus of opinion is that the coming season's crop will be extremely light.

#### Ringwood.

Mr. J. G. Aird on November 22nd reported as follows:—

Crop prospects for the coming season are:—

Cherries.—Fair to good.

Plums.—Generally light.

Pears.—The crop set well, and promised to be heavy, but latterly the fruit dropped to a considerable extent, the prospects now being only fair.

Apples.—Patchy (light in some orchards, and heavy in others); the total, when gathered, will probably be good.

Last season the Cherries were good; Plums fair, and Pears heavy. Early blossoming varieties of Apples were good, but the later kinds were a total failure.

Cherries, Plums, and Pears are principally grown for commercial use, also the following varieties of Apples—Jonathan, Five Crown, Rome Beauty, Yates, Stewart's, Rokewood, Granny Smith, Delicious, Doherty, Pomme de Neige, Dunn's, Reinette, Gravenstein and several others in small lines.

#### Croydon.

Apples, Pears, Plums and Cherries are the main fruits cultivated in this district, writes Mr. W. Lipscombe, on 20th November, the varieties being as follows:—

Apples.—Jonathan, Five Crown, Rome Beauty, Yates, Statesman.

## The Fruit World of Australasia.

Pears.—Keiffer's, B. Bosc, Howell, W.B.C. and Winter Cole.

The fruit crop for the coming season is not anticipated to be as great as earlier appearances indicated. Had the weather been at all favourable, there would have been a record crop all round. A fair crop of Jonathans are expected, however, whilst Rome Beauty and Five Crown will no doubt be heavy. Other varieties of Apples show prospects of being medium to light.

Pears this season will probably be very light, with the exception of B. Bosc and Keiffer's, which are good.

Owing to the continual wet and cold weather, the Black Spot is more prevalent this season than last.

In regard to Cherries, early varieties are showing well, although the later kinds are very light, owing to the excessive wet weather, when so much of the crop was spoiled, and brown rot is very bad in some varieties. The Black Cherry Aphis is also doing a lot of damage to the Cherry orchards in this district, and, generally speaking, it is not expected that the coming yield will be as heavy as last year.

The Peach crop shows signs of being medium to light, the unfavourable weather conditions having caused the fruit to thin out considerably. The same remarks apply also to Plums.

Strawberries and Loganberries are looking well, and show promise of a good harvest of fruit.

#### East Burwood.

The principal fruits grown in this district are Apples, Pears, Cherries and Plums, the chief varieties of Apples being Jonathan, Rome Beauty, Stewart's Seedling, Granny Smith, Delicious, Five Crown, Pomme de Neige, Yates and Gravenstein.

It is too early as yet to give a definite forecast as to the crop anticipations. The fruit showed well at first, but subsequently thinned out, and Black Spot is very prevalent in many orchards, thus reducing what was hoped to be a heavy crop. Beurre Bosc and Williams' Pears will probably be fairly plentiful, but other varieties have fallen off considerably. Most of the stone fruit has also fallen (especially Apricots), whilst Plums in some places are heavy, and in others there is scarcely any fruit at all.

#### Wantirna.

Mr. J. Handasyde, of Burwood-road, Wantirna, under date, 20th November, reports as follows:—

Regarding the coming season's fruit prospects, Jonathan and Yates Apples are expected to be light. Five Crown and Romes gave indications of a heavy yield, but they are thinning out. Stewart's and Pomme de Neige, medium. The Pear crop has also proved disappointing as the setting was heavy,

but has thinned out. Peaches, medium; Cherries were heavy, but have been spoiled by the rain. Strawberries are good in some gardens, and a complete failure in others.

Comparing the present season with last year, Jonathan Apples are anticipated to yield a similar quantity, but Yates were heavier in 1923, also Stewart's, Pomme and Reinettes. Pears, Plums, Peaches, Cherries and Strawberries were very light last year.

A great number of stone fruit trees have died owing to the wet weather. Peach Curl, Aphis and Black Spot have been very disastrous, but the majority of the orchards have clean fruit owing to continual spraying. Twice the quantity of Lime-Sulphur has been used this season as against any other.

A Fruit Growers' Association has been formed in this district, and has proved a great benefit to the Wantirna fruitgrowers in getting their spraying material.

#### Wandin.

A district report by Mr. McCully is as follows:—

The principal fruits grown are Passion-fruit, Cherries (Early Guigne, Bedford, St. Margaret, Florence, Eagle's Seedling), Apples (Jonathan, Five Crown, Reinette, Rome Beauty and Yates.) As far as Plums are concerned, the Burbank variety appears to be the most popular, although all kinds are cultivated to a more or less extent.

In regard to berry fruits, the following are widely grown:—Strawberries, Loganberries, Raspberries, Blackberries and Gooseberries.

It is anticipated that crops (with the exception of Apples and berries, which promise a good yield up to the present) will be rather light, but it is too early yet to say what the Passion crop will be as they are not yet blooming. However, the coming yield of fruit is expected to be heavier than last year, when the thrip was so prevalent, and resulted in one of the worst seasons known at Wandin.

From January to December, 1923, 1,300 tons and 10,000 buckets of fruit were despatched from the Wandin railway station. In addition, a fair amount of fruit was forwarded by road, as two motor lorries were running three times a week. The 1924 fruit harvest was about 50 per cent. less than the figures above quoted for 1923.

In addition to fruit, there are large quantities of Peas, Beans, Tomatoes, Swedes, etc., grown in this district, and it is possible to produce a payable crop every month of the year. One great advantage in the Wandin district is that if you get a set back on berry fruits, etc., you can go for a recovery on market garden produce to keep the pot boiling.

## Wandin Yallock.

This district is not so highly specialised as most fruitgrowing districts, and there are few classes of fruit that are not grown to some extent for marketing purposes, states Mr. R. A. Routley, Secretary of the United Berry Growers' Association, Wandin Yallock.

Of the tree fruits Apples, Peaches, Cherries and Plums are the most grown. Jonathan, Gravenstein, Romes and Reinettes are the most favoured varieties of Apples, and amongst Peaches, Early York, Hale's Early, Zerbes Seedling, Comet and Pullar's Cling.

Cherries include a considerable number of varieties, chief amongst them being Early Guigne, Burgsdorffs, Black Eagle, Early Lyons, Bedford, Florence and St. Margaret.

Plums embrace Burbank, October Purple, Blood, Grand Duke, with President coming into favour.

The growing of Passion fruit is appealing to an increasing number of growers and new plantations can be seen in every direction. The common Black still seems to be first favourite, though some Queensland Mammoths and a few Banana Passions are grown.

Berry fruits bulk largely, the four most extensively grown being Strawberries, Loganberries, Raspberries and Lawtonberries, probably in about that order. Raspberries are going out as the country is being opened up, wind and particularly hot winds, being fatal to them.

Crop anticipations are, Cherries, light; Peaches, light; Apples, patchy. There was a heavy setting and in favourable situations a good crop is promised, but, in wet positions the yield will not be so high. Berry fruits show great promise. It is a little early to forecast Passion fruit yields, but new growth on the vines is beginning earlier than usual.

Generally, with the exception of Cherries, yields will be heavier than last year; in the case of berry fruits, particularly so.

## Diamond Creek Valley.

Mr. A. B. Herbert, of Wattleglen, reports that the principal fruits grown in the Diamond Valley district are Apples, Pears, Plums and Peaches.

The varieties of Apples which are mostly in favour are Gravenstein, Twenty Ounce, Green Alfriston (early), and Statesman, these being especially suitable for cool storage. The following varieties are also very popular:—Jonathan, Munroe's Favourite, Rome Beauty, London Pippin, Stewart's Seedling, Stone Pippin, Reinette, Rokewood and Yates.

In regard to Pears, Williams' Bon Chretien, Howell, Keiffer's Hybrid, Beurre Bosc, Packham's Triumph, Winter Cole, Josephine de Malines and Broompark are mainly grown.

Peaches.—Belot's Early, Hale's Early and Smith's Seedling.

It is anticipated that the Apple crop

will be from medium to heavy for the coming season, Pears medium, and Plums and Peaches light. Owing to the continuous rainfall and the appearance of Black Spot, there has been a thinning out of Apples and Pears, but the crop of fruit generally is much better than last season.

## Harcourt.

Since writing on the crop prospects last month, the excessive wet weather early in November has resulted in a bad outbreak of Black Spot in this district (writes Mr. J. H. Lang). It is rather early yet to tell the full extent of the damage, as many of the diseased Apples would in any case be shed during the present month.

Some varieties of Apples, such as London Pippin and Rymer, are clean, and the Jonathan practically so. Among the most susceptible being Granny Smith, Cleopatra and Dunn's (Munroe).

## TASMANIA

We are the Leading Australian Firm of FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth). Supplies of Corrugated Straw-board, Genuine Sulphite Paper, Nails and best Packing Materials available at all times. Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

Agents for—  
Federal Steam Navigation Co. Ltd.,  
Scottish Shire Line of Steamers,  
Osaka Shosen Kaisha, London  
Assurance Corporation.

Correspondence Invited.

**H. JONES & CO. LTD., HOBART**

The young orchards at North Harcourt have a heavy crop, and may be classed as free from Black Spot.

More lime-sulphur spray has been used this season than usual, and though it has not resulted in absolutely clean fruit, the beneficial results are easily apparent. A combined lime sulphur and arsenate spray has been commonly used with good results.

On the whole the Apple production promises to be a little better than last season, or approximately 200,000 cases. London Pippin, Rome Beauty are heavy. Jonathan medium, and Dunn's (Munroe) light.

Pears set heavily, but have shed very badly. There is still a good crop of W.B.C., while other varieties, such as Winter Nelis, Josephine, Winter Cole, Beurre de Capiumont, are medium to light. There is little or no Black Spot on the Pears.

Plums are looking well, with a heavier crop than last season.

The cool store closed down on the 17th November, and growers are now busy with spraying and cultivating, both of these operations having been

hindered by the prevailing wet weather.

The Harcourt Fruit Supply Society Ltd., which was formed last year for the better distribution of fruit (especially in the northern portions of the State), has had a successful year. The balance-sheet shows a profit of £307 on a turnover of £14,000. It is not the policy of the society to endeavour to obtain large profits, but to the return to the shareholders the largest amount possible for their fruit.

## Ardmona.

In a report from Mr. V. R. McNab, of Ardmona, dated 15th November, he states that this year has been remarkable for the way the trees showed promise of heavy crops in the Spring, and subsequently shed more than half their load during the first fortnight in November, when the weather changed so rapidly from hot to cold. Also, fungus disease and green aphis have been exceedingly prevalent in this district.

The principal fruits grown are dessert and canning varieties of Apricots, Peaches and Pears, also Prunes and Table grapes, of which latter fruit large areas have been planted. The acreage of the midseason yellow flesh slipstone Peaches has been reduced.

A medium crop of Prunes and early Cling Peaches is expected, but dessert and late Cling Peaches will probably yield a light return. A light to medium crop of Pears is anticipated, whilst the Grape harvest will no doubt be heavier than usual. On the whole, the total tonnage is expected to be much lighter than last season.

The Ardmona district has about 2,900 acres in bearing, the total tonnage railed being 11,200 tons, giving an average of 3.8 tons per acre in 1922-23. In 1923-24 tonnage was 11,000, yielding an average of 3.79 tons per acre.

## Shepparton.

The Shepparton Orchard Products' Co. (W. Stewart, Manager) reports, 22/11/24:—

The principal fruits grown are Apricots, Peaches, Pears, Nectarines, Grapes.

Crop anticipations are:—Early Dessert Peaches, heavy; Pears, medium to good; other varieties, medium.

Early Peaches are anticipated to be heavier than last season; remainder about the same.

The acreage is approximately 5,000 acres. Quantity, market, 180,000 cases; cannery, 3,000 tons.

Apricots show some degree of hail mark in patches, also some shot hole and rust, owing to wet spring. Elberta Peaches have fallen badly, and will not be the usual glutted supply.

Both cannery and packing shed are looking forward to a good season; and there is every prospect that good fresh fruit will be more readily saleable than for last two or three years.

## Quantong.

Mr. C. H. Jost, of Quantong, reports under date, November 18th:—We have fine heavy crops this season:—

**Apples.**—Mainly Cleopatra, Dunn's, Five Crown, Romes, Jonathan and Rokewood.

**Pears.**—W.B.C., Keiffer's, and Josephine.

**Apricots.**—Oullin's, Moorpark and St. Ambrose.

Plums, Prunes, Quinces and Grapes (Muscatel) are also grown to a fair extent. Peaches are the only light line, a lot of trees having been affected by the excessive rain and green aphid.

**Muckleford.**—Apples, medium (clean crops); Pears, medium; Plums and Prunes, light.

## Nyah.

Mr. A. R. Lawrence, Nyah, writes under date, 17/11/24:—

Sultanas are the principal dried fruits grown in this district, Currants coming next, while there are only a few acres of Gordos producing. There still remain some 200 acres of spirit Grapes, some acres having been grafted over to Sultanas and Currants.

The crops appear to be very satisfactory, Sultanas being not quite as heavy as 1924 season, but Currants will perhaps be a little heavier.

The total area under vines at Nyah is approximately 2,600 acres, and production last season averaged 1 ton per acre.

Oranges (of which there are 250 acres), promise to yield much heavier crops than at the season just closing.

The spring has been wet, consequently Black Spot has appeared in the vines. Those growers who have sprayed consistently are practically free from the fungus. Should weather remain seasonable, production will not be affected to any great extent.

## Mildura, Merbein and Birdwood.

The following is a district report (including Soldiers' Settlement of Birdwoodton and Merbein West) from Mr. A. B. Bruce, dated 18th November:—

A heavy vine crop for drying purposes is expected this season, and as regards distillery and wine-making Grapes as well as fresh fruit, these will probably yield an average return. Peaches and Pears show excellent prospects, whilst Plums and Apricots are anticipated to give an average crop. Citrus fruits at present indicate a good return.

Taking in the Mildura district, the returns from dried fruit vines for the season 1923-4 were over two tons per acre, details being as follows:—Sultanas, 3,562 acres; Currants, 1,102;

and Gordos 471 acres, the total yield being 10,092 tons. 650 acres of citrus fruits yielded 30,000 cases, and Doradillo Grapes for distillery purposes, 5,000 tons from 600 acres. Anticipations for 1924-5 are slightly under these figures as far as dried fruit vines are concerned.

## Pakenham.

Crop anticipations are stated by the Toomuc Valley Orchards Pty. Ltd., Pakenham, as follows:—

**Apples** are the principal fruit grown, the main varieties being Yates, Jonathan, Statesman, Rokewood, King David, Delicious, Stone Pippin, London and Sturmer; also small lots of other varieties. A few Pears are also under cultivation.

Crops for the coming season are expected to be light to medium, and the Jonathan especially is very patchy.

## Tyabb.

Apples are the principal fruit grown in this district (writes Mr. Robt. Mair), mainly of the Jonathan variety, although Five Crown, Rome Beauty, Sturmer and several others are grown in smaller quantities. Pears, Plums, and Apricots are also cultivated in a more or less degree.

The prospects for the coming season, as far as Apples are concerned, are good, and compare favourably with last year, especially in such varieties as Jonathan, Rome Beauty and Five Crown. Last year, the crops gave indications of being very light, but owing to the heavy rains during the summer, considerable growth took place, and the yield eventually turned out heavy.

In regard to Pears, Williams' will probably be light and spotty, Capiaumont medium, and it is not anticipated that other varieties will yield a very extensive crop.

Plums and Apricots show indications of a very poor yield.

Owing to the continued rainy weather, growers in the Tyabb district are very concerned regarding the Black Spot, although up to the present orchards generally are fairly clean.

The cool stores have already closed for the season, this being much earlier than usual. Prices received were excellent, especially towards the end of the season.

## Narre Warren.

Apples and Pears are the principal fruits produced in the Narre Warren district. Peaches, Plums and Apricots in limited quantities are also grown. The following is the report of Mr. J. W. Bailey, dated 15th November:—

In regard to **Apples**, the Jonathan predominates. Yates and Rome Beauty are fairly extensive, and a few

Five Crowns as well as other varieties, are also grown. The crop is medium to heavy.

**Pears.**—The principal varieties are W.B.C., Keiffer, Capiaumont, Beurre Bosc, Josephine, etc. The crop is expected to be heavy.

Black Spot made its appearance, and it was with the utmost difficulty that growers were able to keep their orchards free of this disease, owing to the very unfavourable climatic conditions prevailing during the spraying season. There are only a few orchards badly affected.

The Narre Warren orchardists have at last been successful in their endeavours to build a cool store, which is now in course of erection.

**Red Hill.**—Crop Prospects.—Apples, Jon. and Yates medium; Romes, Londons, Rokewoods, heavy. Pears—Williams', light; Keiffer, Napoleon, heavy. Strawberries, heavy; Cherries, medium. Some evidence of Black Spot appearing.

## Bairnsdale.

Apples, Pears, Peaches and Plums are the principal fruits grown in the Bairnsdale district (writes Mr. T. J. Peart, under date, 19th November). For the coming season the crop prospects generally are good, a forecast of the different varieties being as follows:—

**Apples.**—Delicious, Five Crown, Shuckle, Rome Beauty, Statesman and Rokewood, good; Jonathan, King David and Yates, medium.

**Pears.**—The Beurre Bosc is expected to yield the heaviest return, although all varieties will probably be good.

**Plums.**—Grand Duke and President, good; Wickson's have been attacked extensively by Black Aphis.

**Peaches.**—Medium.

Taking the whole crops, the coming season's prospects appear to be about on a level with last year's returns, when about 400 acres were under fruit. Hundreds of acres of early Peas have been picked, and have realised good prices, some growers having picked as many as 1,500 bags; others, 400, 500 and 1,000 bags.

French beans are backward owing to the cold and changeable weather. This district is the home for early Peas, Beans and Tomatoes, although the latter are not grown very extensively. Thousands of acres of maize are cultivated, and a record crop was harvested last season, some of the light land going 60 bushels, and the flats over 100 bushels.

## Geelong District.

The Geelong district is reported to be increasing its plantations of fruit, especially Apples and Apricots. Pears are losing favor owing to the Black Spot being so prevalent; also, with the exception of Williams, this fruit

is not bearing as well as in former years.

Growers generally, cater for the local market, although in a few instances, fruit is sold direct to shippers in the outlying districts. A fair amount of cool storing is effected, and taking in the Western District (which consumes large orders every week) most of the fruit grown can be consumed locally. This, however, does not apply to factory fruit. The fruit, especially Apricots, Apples and Cherries, finds a ready market where it is known, it being of a good all round quality.

Woolly Aphis is again making its appearance this season, also Black Spot, Curly Leaf and Cherry Aphis, but the growers are keeping busy with their spray pumps when weather conditions permit, and are determined to check or wipe out the pests. Cherry Aphis is spreading at an alarming rate, causing many trees to die,—or at least, it is the belief that that is the cause of so many dying throughout the district. Fifty per cent. of the Cherries growing during the last two years have had to be rooted out. The remedy for the pest in this particular district is to spray with oil or lime sulphur in the spring, just as the buds are swelling, and later with Black Leaf 40, Nicotine or Tobacco used at summer strengths. It is a difficult pest to deal with once the leaves are curled.

Manuring has now become general, the favourite brand being super and bone. Some growers have gone in for a complete dressing, viz., basic super, potash and nitrate of soda or sulphate of ammonia. One grower is conducting three plots across his orchard, comprised of two rows each and containing Peaches, Plums, Cherries, Apples and Pears (one check row between each plot).

The first plot contains 4 lbs. basic super, and 1 lb. sulphate of potash; the second—4 lbs. basic super., 1 lb. sulphate of potash, and 2½ lbs. nitrate of soda; the third—4 lbs. super. and bone (alone). So far, the second plot, where nitrate of soda has been added, has shown the best results both in the fruit and foliage.

Continual rains are keeping the orchardists busy cultivating; the ground is generally in good tilth, and weeds crop up like mushrooms.

Apples from the cool stores are just about finished, and growers have had a fairly successful year. With the exception of oversized Jonathans, the Apples kept very well, and even with this variety there were not very many lost.

Hereunder is a list of the principal fruits grown in the Geelong district, together with the varieties:—

Apples.—Jonathan, Rome Beauty, Stewart's Seedling, Delicious, Winesaps, Rymer, Rokewood, Pomme de Neige, Cleopatra, Munroe's Favourite, Sturmer, Granny Smith. A medium yield of Apples is expected in most varieties, including Jonathan, while such Apples as Cleopatra, Stewart's

Seedling, Rome Beauty and Munroe's Favourite are anticipated to be heavy.

Apricots.—Oullin's and Moorpark are the principal varieties, of which a heavy crop is expected, but these are falling now, although they are larger than Walnuts.

Pears.—Williams', Howell, Black Achan, Vicar of Winkfield, Keiffer's, Packham's Triumph. Light crop all round.

Plums.—Early Orleans, Angelina, Diamond, Jefferson, Greengage, Golden Drop, Reine Claude de Bavay, Grand Duke, President, Wickson's Bluegage, and a few Prunes. Some varieties have not set as yet, whilst the dark Plums are very light. Light varieties seem to be setting the best.

Cherries.—Werder's Early, River's Early, Bedford Prolific, Florence, St. Margaret, Bigarreau (white). An all round medium crop is anticipated.

Peaches.—Hale's Early, Brigg's Red May, Crawford's Cling, Elberta, Royal George (slip and cling).

Quinces are grown in all the older gardens along the rivers, and Gooseberries are being planted fairly extensively. It is expected that the entire fruit crop will be heavier during the coming season than was the case last year.

## VICTORIAN BERRY CROP.

### Organised Distribution.

Berry growers from the Dandenong Ranges have organised to develop a direct trade with housewives in the supply of buckets of berry fruit. Distribution is being carried out by arrangements between the United Berry Growers' Association and Mr. Blythe, of Mt. Dandenong. Through these efforts sufficient fruit is being placed with house holders to relieve very appreciably the pressure on the Victorian market. With individual private trading added to this, and a fair volume of Victorian business, growers should not be forced to accept too low a price on the open market.

## ASSOCIATION MEETINGS.

### VICTORIAN FRUITGROWERS' CENTRAL ASSOCIATION.

#### Quarterly Council Meeting.

THE quarterly council meeting of the Victorian Fruitgrowers' Association was held at Melbourne on November 18th, the President (Mr. J. W. Bailey) being in the chair.

#### Improved Railway Facilities.

Strong protest was entered owing to the Railway Department failing to provide adequate shed accommodation at Benalla. The fruit was allowed to remain in the trucks over the weekend, causing severe waste and loss. Such neglect was unjust to producers and consumers. Mr. W. J. Foster moved that this matter be brought under the notice of the Minister for Railways. Mr. Hatfield (Box Hill), seconded.

Mr. Willoughby (Tyabb) said that the Railway Department, who received the freight on the fruit, should either provide for prompt transportation or proper shed accommodation. The motion was carried.

### Quantong Fruitgrowers.

The Quantong Fruitgrowers' Association wrote enquiring the conditions of the affiliation. The Secretary (Mr. Burbury) reported that the Quantong district provided a bright example of business efficiency. Last season, by direct trading, the Manager (Mr. C. H. Jost) had distributed £17,000 worth of fruit on behalf of the growers, mainly to country districts, very little of the fruit coming on the Melbourne market.

### Instruction in Fruit Packing.

At the instance of Mr. J. H. Lang, a resolution of appreciation to the Department of Agriculture in relation to its fruit packing classes, and requesting £50 for prizes at district shows, was carried.

### Canning Fruits and Sugar.

Mr. W. J. Foster (Merrigum) reported that the growers in the Goulburn Valley and the Murrumbidgee Areas had combined to organise their interests and to control negotiations for disposing of the canned fruit crops. A bounty was necessary for the coming season. The price (£10 a ton) paid last season did not cover the cost of production, as independent audits of the growers' books proved. Growers could not afford to accept less than £12 per ton. The Government should be asked to conduct a full inquiry into the cost of production of their fruit. One of the greatest obstacles to the progress of the fruit industry was the sugar position. The Prime Minister had stated that on his return from Queensland the Government would declare its policy with regard to the sugar position on the termination of the embargo next June. The Prime Minister had stated that the sugar position was not detrimental to the fruit industry. Before going to the conference at Leeton he (Mr. Foster) had wired the canning factories asking what concessions they could make if the embargo was removed, and the growers would then have a concrete proposal to place before conference. He had received a reply as follows:—"If embargo removed or concession mentioned allowed on sugar, will pay growers £2 per ton extra on Apricots, Peaches and Pears, and £3 per ton on all jam fruits, over last season's prices." That was a definite offer. Most of all the factories in the Commonwealth are now handling jam, and it can easily be seen that the sugar position will affect them all. Mr. Bruce said he was going to consider the Queensland position on his return to Melbourne, and fruitgrowers desired that their position should be considered also. Production was increasing, and growers must find wider markets—which meant really that they must sell more

fruit on the home markets, and must sell as cheaply as possible.

Mr. Foster moved, and Mr. H. H. Hatfield seconded, the following motion:—

**"That this Association requests that the embargo on sugar be lifted at the earliest possible moment, and that in the meantime Australian sugar be made available for the fruit industry at a reduction of at least £10 per ton, this concession resulting in a benefit of £2 for canning and £3 per ton for jam fruits to the grower."**

The motion was carried unanimously.

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### Plum Pool Suggested.

On the motion of Messrs. Nankervis and Hatfield, it was decided to invite Plum growers to attend a conference to consider the formation of a Plum pool.

### NORTHERN VICTORIA FRUIT GROWERS' ASSOCIATION.

### Sugar Position Discussed.

The annual meeting of the Northern Victorian Fruitgrowers' Association was held at Merrigum on 20th November. Delegates from the various district associations were present. Resolutions were carried as follows:—

(1) That in the opinion of this combined meeting of delegates from the Northern fruitgrowing districts of Victoria, the present embargo on the importation of sugar is harassing the fruit industry, and making production unprofitable, and that until the embargo is removed, and the import duty reduced to £6 per ton, it will be necessary for the jam and canning industry to receive production and export bounties from the Federal Government.

(2) That in view of the statement by the Department of Trade and Customs that the canning of Apricots is unprofitable, this combined meeting of delegates, representing the northern fruitgrowing districts of Victoria agree to ask the Federal Government for sugar to be made available at the world's parity plus the previous duty of £6 per ton to be used for converting the Apricot crop into jam, or alternatively, a production bounty on the manufacture of Apricot jam be granted to the industry. Further, that the Apricot trees were planted for the purpose of producing fruit for jam manufacture, while the duty on sugar was in operation on a basis of £6 per ton.

### Arbitration Awards.

Mr. McNab explained that Judge Powers had called a compulsory conference for November 28th to discuss the new claim of the A.W.U. The following members were appointed to represent the Association:—Messrs. Foster, Lenne, Pullar and McNab.

### Pear Growers' Organisation.

The conference of Pear Growers was held the same day for the purpose of electing an executive. The election of officers resulted as follows:—President, Mr. F. Pullar; Vice-President, Mr. A. H. Carver; Committee—Messrs. Rule, Pullar and McNab.

Mr. Carver gave a report of the work done by the Pear Advertising Committee, the members of which are confident that good results will result. The report was adopted.

### NEW VICTORIAN MINISTRY.

The Labour Ministry in Victoria was defeated by the combined votes of the Nationalists, Country Party and Liberals. The new Cabinet is as follows:—

Mr. J. ALLAN, M.L.A. (C.P.)—Premier and Minister for Water Supply.

Sir ALEXANDER PEACOCK, M.L.A. (Lib.)—Treasurer, Minister for Education and Minister for Labour.

Dr. S. S. ARGYLE, M.L.A. (Lib.)—Chief Secretary and Minister for Health.

Mr. F. W. EGGLESTON, M.L.A. (Lib.)—Attorney-General, Solicitor-General and Minister for Railways.

Mr. A. DOWNWARD, M.L.A. (C.P.)—Minister for Lands and Immigration.

Mr. H. F. RICHARDSON, M.L.C. (Lib.)—Minister for Forests.

Mr. G. L. GOUDIE, M.L.C. (C.P.)—Minister for Public Works and Mines.

Mr. M. W. J. BOURCHIER, M.L.A. (C.P.)—Minister for Agriculture and Markets.

Mr. W. P. CROCKETT, M.L.C. (C.P.), Mr. M. M'GREGOR, M.L.C. (Lib.), Mr. J. M'DONALD, M.L.A. (Lib.), and Mr. E. J. MACKRELL (C.P.), Honorary Ministers.

**Ringwood.**—At the October meeting of the Ringwood Horticultural Society, Mr. P. Val Kerr, Vice-President, in the chair, surprise was expressed that

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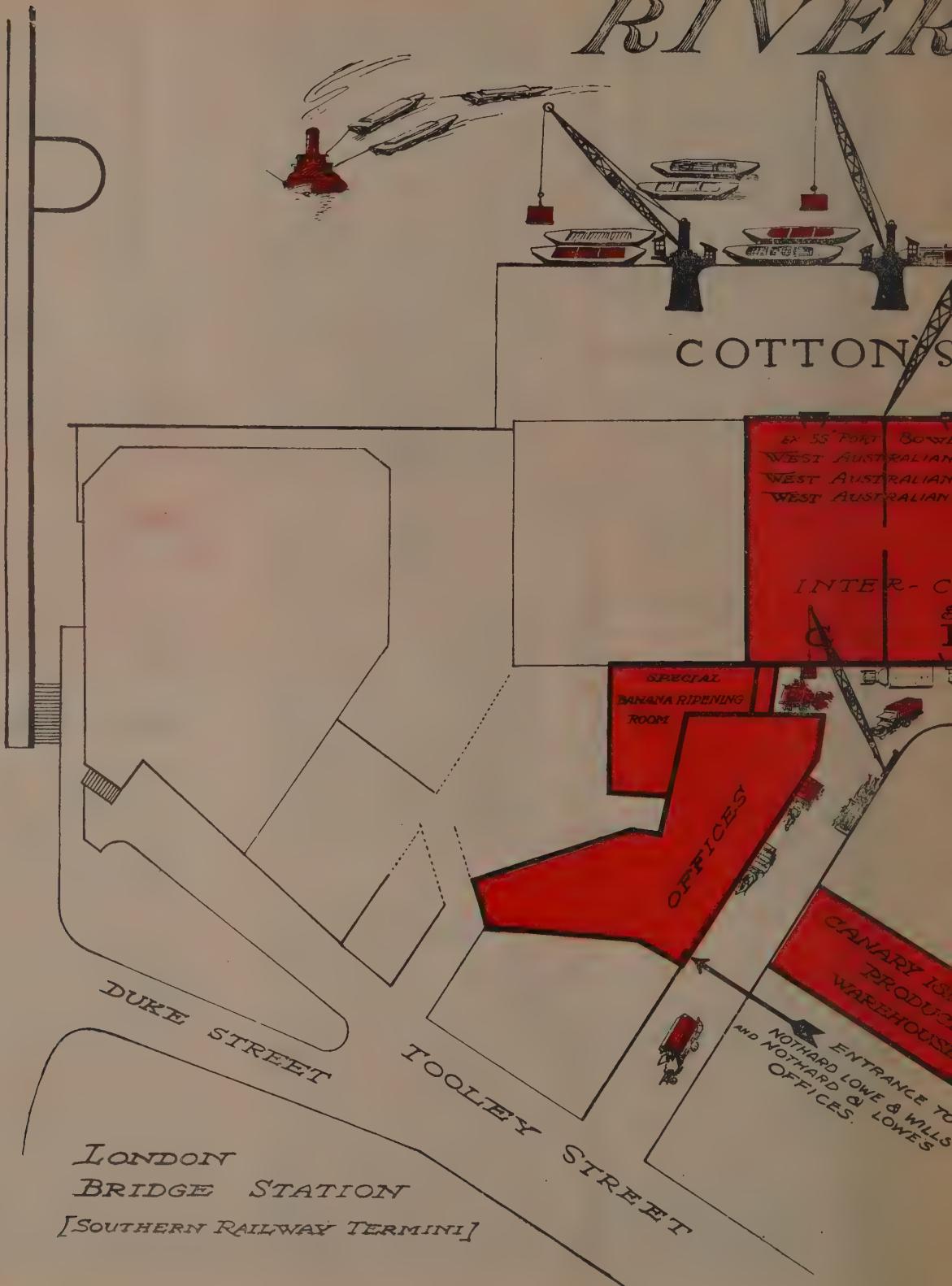
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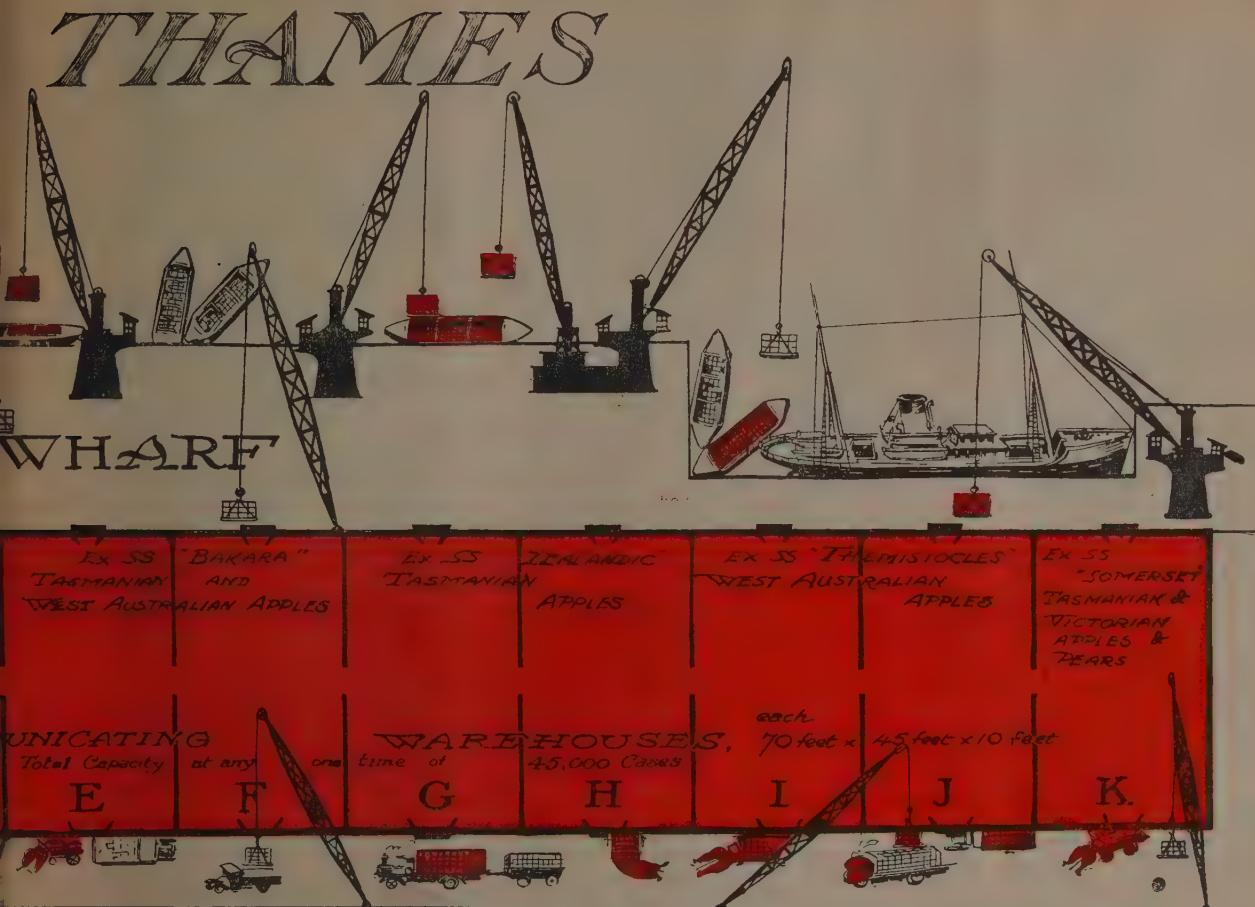
no acknowledgment had been received from the Department of Agriculture for the fruit sent to Wembley. It was decided to institute enquiries.

**Better Farming Train.**—The better farming train organised by the Victorian Department of Agriculture and the Railway Department has proved a tremendous success. Farmers are keenly appreciative of the opportunities thus provided for receiving education on up-to-date methods of farming and household management, and the results will surely be increased prosperity to farmers and the community generally.

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## Tasmania

### CULTURAL NEWS AND NOTES.

#### FRUIT SEASON'S PROSPECTS.

##### Light to Medium Crops Expected.

(By Our Special Correspondent).

THE general climatic conditions prevailing in the various fruit districts of the State during the present season have militated against a normal setting of the crops. Showery weather is still being experienced, and fungus diseases are in evidence, even in the drier areas.

The majority of growers are closely watching their crops, and have been combating Black Spot development since the early "green tip" stage of spray application. The value of such work is apparent when comparison is made against unsprayed areas, and there is promise of a great improvement over the 1924 season.

**Apples.**—Indications at present point to a much lighter crop than was at first showing; Worcester Pearmain, Sturmer Pippin, Tasma (Democrat), Cox's Orange Pippin, London Pippin, Alfriston, Adams' Pearmain, and Duke of Clarence generally promise from good to heavy crops. French Crab, Ribston Pippin, Delicious and Dunn's are from fair to medium; whilst Jonathan, Cleopatra, and Scarlet are light, the latter variety being in most cases almost a complete failure. A certain amount of Black Spot is in evidence, especially amongst susceptible varieties, which have received very little spray treatment.

**Pears.**—The Pear crop will only be from light to medium, the cold and showery weather experienced around the blossoming period interfering with the setting of the fruits. Practically all varieties, with the exception of Beurre Clairgeau, Beurre de Capiumont and Gansell's Bergamot, are showing only a moderate yield. Winter Cole and Beurre Bosc suffered as much as any kinds, and are in some districts commencing to show Black Spot infection on the young fruits. The canning varieties, Keiffer and Williams', have medium crops, Napoleons are patchy and much affected with spot.

**Apricots.**—In practically every district these trees are carrying heavy crops, and thinning will be necessary if a high percentage of good quality fruits are to be produced. After the experiences of last season the majority of growers treated their trees with Bordeaux Mixture at the dormant period to control "Shot Hole Fungus." On the whole the crop is so far fairly free from this disease, and the fruits are making good development.

**Plums.**—Most Plum varieties are very irregular in their setting, some trees being laden, whilst others adjacent are almost bare. Golden Drop and Grand Duke have from medium

to good crops, and the Greengages are generally showing a satisfactory setting. Prune varieties are light to medium, in some cases a heavy "fall" having occurred during the last few days.

**Small Fruits.**—These promise well; the canes and bushes are making splendid development, the berries being well advanced for the period of the year. Black Currants experienced late frosts in some districts, which somewhat thinned the crops, but on the whole the yield should be considerably higher than 1924. The first Strawberries are appearing on the markets, and the harvesting of green Gooseberries will soon be in operation.

Although the season has been much better than last year, too much rain is being experienced which, if continued, will have a serious effect on the crops. At this period a few weeks of dry warm weather would be beneficial to all branches of the industry, and would be invaluable in checking the development of fungus disease.

It is somewhat early to give a reliable estimate. Further details will be published next issue.

#### Bagdad.

The principal fruits grown in Bagdad district are Apples, Apricots, Pears and Plums, the two former preponderating. The main varieties are as hereunder:

**Apples.**—Sturmer, Scarlet Nonpareil, Cleopatra. These form the bulk of the crop in the district, but dozens of other varieties are grown in lesser quantities. The Crofton is the main late Apple for Sydney markets, though Tasma is being planted or worked over in fair numbers. Both varieties do particularly well here.

**Apricots.**—Moorpark is the main kind, but various other early varieties are grown in lesser quantities, such as Mansfield Seedling and Hemskirke.

**Pears.**—Winter Cole, Winter Nelis, Williams', Josephine, Beurre Bosc and Napoleon. The latter is mostly grown in old gardens.

**Plums.**—Golden Drop and Greengage.

The crop anticipations are as follows:—Apples, medium; Apricots, heavy; Pears, heavy; Plums, medium. In regard to Apples, Scarlets and Cleos. are reported light; Sturmers, heavy. The Apple crop will probably be lighter than last year.

About 32,000 bushels of fruit passed through the co-operative packing shed last season, also a fair quantity outside from non-shareholders.

Owing to devastation wrought by Black Spot and hail, last season was a disastrous one to the orchardist. There were a few growers who had excellent crops of fine clean fruit.

The Black Spot was most peculiar, attacking some orchards badly, while others next door were comparatively clean. One side of the main road

seemed fairly clean, whilst the other was very badly affected. There seems to be no solution to the puzzle. Many well sprayed orchards were as badly affected as neglected ones.

One of the cleanest orchards in the district as regards Spot, was that of Messrs. Bisder Bros., who were fortunate in having a fine crop all through, Messrs. J. C. Graves and T. J. Eddington also had some fine fruit.

Most orchardists in Bagdad are using a Lime-Sulphur—Bluestone spray for the Spot. It has proved most successful in this district, and it also acts as a fairly good preventive to Powdery Mildew.

The proportions used are:—Lime-Sulphur,  $1\frac{1}{2}$  gallons.; Bluestone, 1 lb., water, 40 gallons.

The Department of Agriculture is giving this formula a try out in their experimental plots, which are under the supervision of the Fruit Expert (Mr. P. H. Thomas), and it will be interesting to see results compared with other formulae.

As regards the second destroying angel, viz., hail, last season, this affected the Mangalore end of the district most severely, and one's heart can only go out in sympathy to anyone who suffered as did those in this area. Apples were simply battered out of recognition, and were only fit for the jam factory (and bad enough for that). It was far worse than Black Spot.

The 1924 spring has been very unsatisfactory, very cold and wet for the most part. It seems as though the sun has forgotten how to shine over here, and it will not be surprising if there should be another visitation of the Spot this season. Most orchardists have sprayed diligently, and another bad outbreak would ruin many.

Our growers seem to be paying more attention to manuring lately—a matter which has been sadly neglected of late years. A number of growers are realising that potash is an essential for fruit.

During the war, and for a few years after, this commodity was almost prohibitive in price, but now that it has receded in price so greatly, it might well be used more generally with profit.

Orchards generally are looking well, and are being well worked, and growers are hoping for a prosperous season to recoup them for last season's disasters. For the fortunate ones, who had good fruit, the Sydney market has been excellent. The late boats on the English market were very satisfactory on the whole, and it was needed, too, as some sort of set-off to the losses incurred on the earlier boats.

**Lalla.**—Mr. F. Walker reports crop prospects:—Apples, medium, clean. Pears, light.

## Southern Tasmania.

The Port Huon Fruitgrowers' Co-operative Association Ltd., reports (24/11/24):—

**Apples.**—There is every indication in the southern portion of Tasmania of a medium crop of Apples. Sturmers and Cleos are particularly heavy, also there is a good show of Jonathans, but Crabs, Ribstones, and Cox's are very light. Scarlets have not set well.

So far the Black Spot is not in evidence to any serious extent, but everything depends on the weather from now on. Practically every grower in Southern Tasmania has been strenuously spraying for some time past.

**Pears.**—There seems to be a very light crop of Pears in all districts.

**Small Fruits.**—The Black Currant crop is likely to be light, but there is every appearance of a fairly good crop of Raspberries.

**Plums.**—Plums are light everywhere.

**Apricots.**—There is an excellent show of Apricots, and from present appearances it looks as if there is going to be a record crop.

## East Tamar.

Commercial varieties of Apples and Pears are the main fruits cultivated in this district (writes Mr. David Medwin, of Woodlawn, East Tamar, Tasmania). This locality is celebrated for its fine quality of fruit produced, and the high prices consequently obtained. Last season, up to 4,000 bushels were sold at 10/- per case clear. The district holds the distinction of having the pioneer orchardists who still keep expanding in acreage the commercial fruit business. There is a very wide field for the orchardist, and success is sure if they follow approved methods.

In regard to the coming season, it is not expected that the crops will be heavy, being much lighter than last year.

TASMANIAN NEWS AND NOTES.  
(By Our Special Correspondent.)

## Overseas Fruit Markets.

A definite attempt is being made this coming season to again open up the direct fruit trade which existed with Hamburg before the war. This is good news to growers, as under existing conditions and production, every opportunity should be taken to extend the outlet for Apple and Pear crops.

Speaking on the subject at Huonville, Sir H. Jones (of H. Jones & Co. Ltd.) stated that arrangements would possibly be made for four or five steamers to call at Hobart to lift fruit for this port, if cargoes of from thirty to forty thousand cases were available.

Before the war occurred, a good trade was being worked up with Ham-

burg for fresh Apples, up to 300,000 cases having been profitably sold in one season. Until last year no attempt was made to resume the export, owing to the unsettled rate of exchange. There is every prospect of the overseas markets considerably improving next season. The reports that are to hand concerning the American crop show that it is 60 per cent. below normal, and that owing to the season a great deal of ("scab") Black Spot is in evidence.

Last year America produced a record crop and during the competitive period, viz., March 15th to May 15th, shipped nearly 1,500,000 bushels to the English markets. There is no doubt that this seriously affected the sales on the early boats, as at one time a glut was occasioned, and large quantities were sold as low as one dollar per barrel. If the reports to hand are correct, America will not export one-third of the crop this year, which should materially improve the prospects of Australian fruit at the commencement of the season.

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## New Wood Wool Machine.

The Tasmanian fruit industry is much interested in the trial of a new wood-wool making machine, which has been patented by Mr. J. Lomas, of Huonville. Mr. Lomas will be remembered as one of the original Australian inventors and makers of fruit graders. He has now turned his ingenuity in a new direction, and from the results of the demonstration given, evolved a new and very efficient machine.

The chief features are contained in employing a rotary shredding motion instead of the old vertical reciprocating action. The wood wool, which is made from swamp gum and wattle, is of extremely fine texture, the output is increased for the same power, and dust almost eliminated. These advantages should revolutionise the manufacture of wood wool, and be a distinct economy to the fruit industry.

## Experimental Plum Shipment.

Arrangements are being made by the State Fruit Expert (Mr. P. H. Thomas) to conduct an experimental

Plum shipment this coming season, utilising one of the special chambers provided by the Australian Commonwealth line in the s.s. "Esperance Bay." The varieties exported will be limited to Grand Duke, President, Satsuma and Golden Drop. A similar experiment was to be conducted last season, but had to be postponed owing to the vessel not visiting Hobart on account of the adverse season.

## Berry Fruits.

The outlook for the berry fruits is more promising this coming season than it has been since the termination of the war. The crop promises to be a good one, and the factories are already making contracts for the supply of fruits. Owing to the experiences of past seasons, an endeavour is being made to induce the grower to pick a greater proportion of fruit for canning and preserving purposes. Raspberries are quoted at 3d. per lb. in tubs, and 5d. per lb. in punnets. It is more of the latter class of fruit which the processors are desirous of obtaining, as the canned product is finding a ready and increasing sale.

## STATE ADVISORY BOARD.

A special meeting of the State Fruit Advisory Board was held at Hobart on November 4th.

There were present:—Messrs. A. Davies (Chairman), N. Campbell, M.H.A.; V. J. Skinner; F. Walker; J. H. Astell; V. Shoobridge; H. Hamilton; T. Eddington; E. Ross and Sir H. Jones (rep. H. Jones & Co.), J. P. Piggott, M.H.A.; R. J. Pearsall, and P. H. Thomas (Secretary).

Mr. Davies stated that Mr. H. Hamilton had been elected on the Board in place of Mr. Hedley Calvert, deceased.

## Control of Fruit on Overseas Markets.

The Secretary read schemes of control submitted by Messrs. A. H. Ashbolt, J. P. Piggott, M.H.A., and F. Hodson, together with correspondence on the matter for consideration of the Board.

It was decided—

(1) "That the Board recommend a scheme to be formulated to effectively control the sale of Tasmanian fresh fruit in Great Britain, and when deemed necessary other overseas markets, and that the Secretary of the Australian Fruit Council be so informed.

(2) "That the principle of utilising the existing selling organisations be affirmed, but under the control of the growers in the several States upon a basis of quantities exported."

It was decided—"That the co-operative companies and growers' forwarding agents meet and formulate a scheme of control of fruit on overseas markets, appointing a committee to exercise such control, and referring their recommendations to the State Fruit Advisory Board."

## Western Australia.

### Reduced Crop Prospects.

A telegram to hand from Western Australia is to the effect that whereas appearances at first indicated a good crop of practically all kinds and varieties of the fruit grown in Western Australia (with the exception of Loquats), it is regretted that the setting was not up to promise.

### EARLIER REPORTS ARE AS FOLLOWS.

#### Bridgetown.

The fruit crop in this district is setting well, despite the rainy season. As far as Apples are concerned, Jonathans indicate a heavy yield, although Cleopatras are not doing so well. Plums, Apricots and Pears are showing a good setting.

A brief spell of fine weather in October afforded growers the opportunity of spraying for spring beetle, which is a very serious pest in this locality, and the weather conditions are also favouring the Woolly Aphis to a great degree. As soon as the rainy season is over, spraying operations will commence in earnest, and it will be interesting to note the effect the parasite *anthonomus mali* will have on this particular pest.

As an instance of the precarious weather conditions, attention is drawn to the fact that at this time last year the growers were breaking clods with a roller—now they could plough any part of their orchards to any depth.

#### Mount Barker.

The coming season promises to be a good one for orchardists here. After a very mild winter, with eleven inches of rain below the average, we have experienced the wettest October for 10 years. While delaying orchard operations considerably, should ensure good development of fruit. All export varieties have set heavy crops, as also have Pears. In spite of the heavy crop, buyers are already operating.

The Fruitgrowers' Co-operation here has installed a wireless outfit for the benefit of growers, enabling them to keep in daily touch with the markets.

Experiments are being conducted towards the elimination of crack in Dunn's Seedling, Bordeaux spray is being dropped in favour of lime sulphur. It is too early yet to report results.

Mr. A. T. Booth, Secretary of the Mount Barker Co-operative Cool Store writes as follows, under date Oct. 22.

Practically all varieties are just coming into bloom but they are certainly on the late side as Cleos, Jonathans and Dunns in the ordinary course should be fully out, but I think it will be three or four days before that can be said. There are indications of a very heavy crop, as the blossoming is extraordinarily good

and looks strong. Rains have been heavy and late, and we have had more rain in October than any other month in the year, there being between 5 and 6 inches in some parts since the beginning of the month. Orchards that are not drained have been wetter than I have ever known them, and in very many places plowing is only just commencing, which, as a rule, is unheard of.

Fortunately most of the spraying took place in September, but some had to be missed, and will have to be done after the petals have fallen. The orchardists here are experimenting in many different ways to cure the crack in the Dunns Favourite which has become rather prevalent, but Lime Sulphur is the spray that is being relied on mostly.

#### Fruitgrowers' Conference at Mount Barker.

Delegates from Bridgetown and Mt. Barker and Kalamunda met at Mt. Barker on October 25 for the Annual Fruitgrowers' Conference. After the delegates had been tendered a civic welcome, the conference opened, with the Rev. F. Davis, Bridgetown, in the chair.

Delegates present were:—

**Bridgetown.**—Rev. F. Davis, Messrs. Sparkes, Lowe, Hill, Ozanne, Mauger, Machin, Ramage, Flintoff, Hester, Ilberry, and Green.

**Kalamunda.**—A. C. R. Loaring.

**Mt. Barker.**—Messrs. J. Martin, A. T. Booth, T. Skinner, E. Thomas, J. Watson, and C. J. Van Zuijlecom.

There were also present Messrs. A. Wansborough, M.L.A., and Mr. G. Wicksen, Officer in Charge of Fruit Industries.

The President, in his opening address, stressed the necessity for further organisation among fruitgrowers. He pointed out the difficulties which both the Association and the State Advisory Board had to meet through members of Parliament introducing various unofficial deputations of fruitgrowers to Ministers. Although not representing every grower in the State the local Association represented a very large majority of both big and small growers, who were therefore represented by the State Advisory Board. He asked every grower to assist in bringing further members into the organisation. At present the Apple and Pear growers were well organised, over 250 growers being members of the Association. The citrus growers and dried fruits men were making every effort to put their associations on a sound footing. It was essential, in view of the possibility of a Compulsory Marketing Act, that every phase of the industry should have adequate representation on the State Advisory Board, so that nothing would be done that was not in the best interests of those engaged in the industry. Referring to fruit at Wembley he said it was a pity that the growers had not received the benefit of the sales at the Exhibition.

He thanked the members of the Advisory Board for the work they had done in the past year on behalf of the industry. The Board had been officially recognised by the late Government, and he hoped that the Collier Government would also recognise that the Board had the majority of the growers behind it.

Mr. Sparkes (Chairman of the State Advisory Board) gave a short account of the year's work of the Board. The Board had, he said, sent delegates to the Fruit Council in Melbourne, who had fought hard against the proposal to allow Tasmania to send inferior fruit to London. Although the delegates had been unsuccessful, they had the satisfaction of knowing that permission would not be given this season for exporting blemished fruit. The Board's protest against the removal of fruit barrows from their usual positions in Perth, as was proposed by the City Council, had met with success.

A vote of thanks to Mr. A. McCallum (Minister for Works) for his courtesy and support of the work of the Board in the matter of fruit barrows was carried unanimously.

The following resolutions were adopted:—

1. That a protest be sent to the State Government that the rights of sales of West Australian fruit at Wembley Exhibition were given to a private firm, after growers at their own risk had supplied fruit for the show cases, and also to ask that should the Exhibition be open next year, fruit be sold for the benefit of the Australian growers as was done in the case of New Zealand growers last season, and that the Premier be asked to make inquiries from the Agent-General.

2. That the Agricultural Department be asked to send a practical man to the fruitgrowing centres to instruct orchardists in the correct method for packing export fruit as was done some years ago, as we consider that since that time there are many smaller growers who have not received instructions.

3. That as the Secretary of the Mount Barker Fruitgrowers Association is going to London next year in the interests of orchardists, the Government be asked to support his mission by appointing him as an honorary commissioner, as this would be the first occasion on which they would be represented in London by a fruitgrower in the interests of our industry.

4. Mr. G. R. P. Wall outlined a scheme for the formation of a compulsory insurance pool for export fruit coupled with a scheme for reconditioning fruit in London. The conference decided that Mr. Booth be asked to sound the brokers in London as to the feasibility of the scheme, and that the scheme be left to the Advisory board.

5. Mr. A. T. Booth moved that the Federal Government be asked the

inspection of export fruit be tightened up, and that the interpretations of the Act be construed in the same way in every state and not as occurred last year, that Tasmania be allowed to brand 28th Apples as special while West Australia was compelled to brand similar Apples as plain. After Mr. Wickens had informed the conference of the difference of opinion between officers in different states and had told the growers that they had no reason to fear further inspections as he was informed authoritatively that fruits from this state were a good deal better packed and graded than those from other states, the motion was passed.

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Garden.

6. Mr. J. Martin moved, "That this Conference entirely agrees with the proposal to fix dates for the arrival of Apples in England from the different countries." It was explained that the movement emanated from England and that it was proposed to divide fruit exporting countries into zones to avoid overlapping in the export market. Australia, South Africa and New Zealand would have from, say, April to June. America and Canada from November to April, and English growers the remainder of the year. The motion was carried.

The conference discussed a proposal, "That the shipping companies be asked to make overseas freights payable in London as in the case of wheat

## The Fruit World of Australasia.

and wool, also that exchange of remittances be paid in London."

Mr. P. V. Mauger said that the fruit shippers committee made strong representations to the shipping companies that this should be done, but the companies replied that this would be tantamount to a reduction of freight of 2d. a case and they would not agree to the suggestion until such time as the Australian Government reduced their harbor and wharf dues. The rule of the companies was to demand advance freights on perishable cargoes. Mr. Mauger did not think that anything further could be done.

The Conference, however, decided that the advisory board should make a further request to the shipping companies.

Mr. Ozanne moved "that this conference take steps to get the associated markets to reduce their charges on a/c sales."

Messrs. Loaring, Sparkes and Martin replied on behalf of the Producers' Markets, Perth, and Associated Fruitgrowers, Kalgoorlie, showing that owing to increased costs it was impossible to make any reduction, and declaring that charges made by brokers in this state were considerably less than those in all the other states with the exception of Queensland.

The motion was rejected.

The following officers were elected for the ensuing year:—President, Rev. F. Davis; Hon. Sec., Mr. Lowe; Committee, Messrs. C. H. Ozanne, A. Cullen, E. E. Hill (Bridgeford),—Messrs. E. Thomas and T. Skinner (Mt. Barker).

Delegates to State Advisory Board, Messrs. O. Sparkes and T. Skinner.

The following motion was passed:—

"In the opinion of this conference, understanding that the Government proposed to introduce a fruit marketing Bill similar to the Queensland Act, the Fruit Advisory Board, which represents a large majority of the industry should be consulted on the provisions and the clauses of the proposed Act before same is presented to Parliament, and that organising work should be undertaken to explain to growers the principles of the Act.

### WEST AUSTRALIAN FRUIT-GROWERS.

#### Annual Conference.

The Annual Conference of West Australian Fruitgrowers, convened by the State Fruit Advisory Board, was held at Perth during November. There were forty growers present. Mr. Owen Sparkes (Chairman of the Board) presided, and Mr. G. W. Wickens (Officer in Charge of Fruit Industry) acted as Secretary.

The Chairman presented the second annual report of the State Fruit Advisory Board, which was adopted.

#### Cool Store.

Mr. Booth (Mt. Barker) said that the scheme to provide cool storage on the Fremantle wharf had been turned

down as being impracticable by experts.

#### Election of Board.

The following were elected as members of the State Fruit Advisory Board:—Messrs. O. Sparkes, J. Skinner and G. Sharp (pig fruits), F. Simper (soft fruits); F. J. Becker and G. Schmidt (citrus); A. Conroy (dried fruits).

The representatives of the exporters and distributors will be elected by their own organisations.

#### The Fruit Fly.

Mr. G. W. Wickens stated that the Minister for Agriculture had promised

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## PROMPT RETURNS

to introduce legislation which would make it compulsory for growers to adopt measures to fight the fruit fly.

#### Compulsory Marketing Bill.

Mr. Edwards (Manjimup) moved that the Government be asked to introduce a compulsory marketing bill. After full discussion, an amendment was carried that "in the opinion of this conference, statutory powers are necessary in order to give the fruit-growers of this State control of the industry, and we ask the Government to send a responsible officer to Queensland to make himself thoroughly conversant with the operation of the Queensland Fruit Marketing Act."

The conference then closed.

### SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from October 20th to November 20th, 1924. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:—

R. Aitken (Sept., '25), Dept. of Agriculture, Sydney (Sept., '25), Aust. Co-op. Fertilisers' Ltd. (Feb., '25), W. J. Barry (Feb., '25), Wm. Beatson (Sept., '25), D. C. Black (May, '25), W. G. Boyd (Oct., '26), A. C. F. Brockhoff (Sept., '25), G. E. Brown (July, '25), California Spray Chem. Co. (Aug., '25), Chas. Cawood (July, '25), H. T. Castles, (Sept., '25), J. J. Charlton (July, '25), G. R. Clerk (Oct., '26), Thos. Connor (Sept., '24), C. W. Coomber (Mar., '25), L. S. Cuzens (May, '25), J. Downham (Sept., '25), J. H. Dunstan (Nov., '24), C. W. Einam (Aug., '25), Alf. Elms (Sept., '27), E. Erwin (Sept., '25), S. E. Eyres (Sept., '25), B. Fremlin (Aug., '25), Geo. Frost (Sept., '25), J. Galloway (Oct., '25), C. R. Glover

(July, '25), G. A. Gilmour & Son (Oct. '25), G. Grant (Mar., '25), D. Grant (July, '25), A. F. Gray (July, '25), W. J. Hannaford (Dec., '24), E. R. Hannaford (Sept., '25), L. A. Harris (Sept., '25), A. B. Herbert (Jan., '25), High Commissioner's Office, London (June, '25), H. Jones & Co. (South Africa), (July, '25), H. M. Jones (Sept., '25), J. Kinsella (Jan., '25), J. H. Knappstein (Aug., '25), L. Knapton (Aug., '25), P. Lawrey (Sept., '25), A. Lenne (Sept., '25), W. Leslie (Sept., '25), A. Livingstone (Aug., '25), W. Littlefield (Sept., '25), L. Meggitt (July, '25), G. Mock (Dec., '25), S. B. Moonaw (Aug., '25), J. E. McGregor (Mar., '25), G. V. Newman (Feb., '25), A. Nott (Feb., '25), C. Penton (Aug., '25), F. Petty (Mar., '25), A. L. Pitts (Sept., '25), A. Pfeiffer (Sept., '25), S. Plush (Sept., '25), W. Powell (Aug., '25), F. T. Puller (Aug., '25), T. H. Ray (Sept., '25), S. Redgrove (July, '25), Robinson Bros. (Sept., '25), H. E. H. Rolfe (Mar., '25), B. J. Rowe (Sept., '25), J. G. Russell (Oct., '25), J. Sagar (July, '25), F. W. Schmidt (Sept., '25), Wm. Smith (Sept., '25), E. J. Stafford (Sept., '25), W. J. Sweetman (Oct., '25), The "Sun" (Mar., '25), H. E.

Tainton (Apr., '25), E. G. Terry (Oct., '25), F. W. Tippett (Sept., '25), R. Toogood (Sept., '25), F. L. Vines (Aug., '25), C. Walker (Dec., '24), W. Weddel & Co. (Aust.) Pty. Ltd. (June, '25), R. G. Wells (Aug., '25), Williams Bros. (July, '26), A. Wilkinson (Dec., '24), T. J. Williams (June, '25), G. L. Wishart (Dec., '24), F. Win (Dec., '24), J. T. Wright (Sept., '25), J. H. Wright & Co. (Jan., '26).

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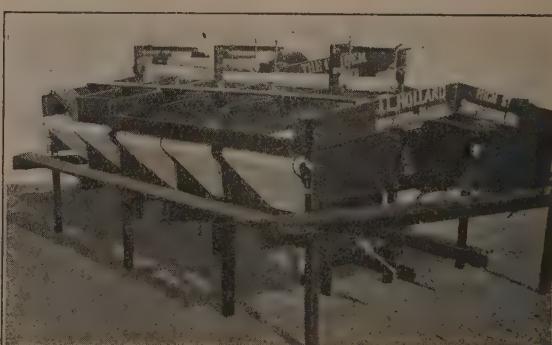
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### DO INSECTS DEVELOP IMMUNITY.

To the Editor, "Fruit World."

Dear Sir,—I am looking for light on the subject of "Developed Immunity of Insects," and can think of no better method than through your columns.

Nature has provided every living thing with protection of some sort from its enemies.

In some cases it is flight, in others fight, and in others camouflage (the art of concealing the fact that something is being concealed), and, in fact, the methods of protection bestowed are almost limitless.

Fruit tree pests cannot fight or run away, and are apparently helpless against the standard controls of the fruitgrower.

Yet are they quite helpless?

Why is the Codlin moth not attracted by a lamp at night time?

And now a case has come to the notice of the writer, in which the Codlin grub is being unaffected where the arsenate of lead used has been used successfully for several years past. Is it a parallel case to that of the starling, which it is practically impossible to poison?

And now we read that, in California, in some districts where fumigation has been general for several years, the red scale of Orange and Lemon has developed immunity from hydrocyanic acid gas.

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The writer would be very interested to hear from any person who has a concrete case in which any insect pest has apparently developed immunity from any standard control that has been successfully used in past years.  
—Yours, etc.

WOOLLY APHIS.  
Goulburn Valley, Vic.  
[Correspondence from our readers on this subject is invited.—Editor, "F.W."]

### AUSTRALIAN FRUIT EXPORT.

To the Editor, "Fruit World."

Sir,—Referring to the article on page 514 in the November "Fruit World," headed, "Australian Fruit Export—Mr. A. H. Ashbolt's Scheme," I was pleased to note your comments in regard to these proposals, for, as stated, they are sufficiently far reaching to engage the serious attention of all exporting growers.

May I say that, in my opinion, there is too great a tendency to establish Advisory or Control Boards, with headquarters in London, to deal with the marketing of Australian primary produce.

It is inevitable that these organisations (more or less unconsciously) acquire what may be termed, "the London outlook," as nine-tenths of their time is spent there, and they necessarily come into contact with all

the influences which tend to continue the centralisation and control of such matters in London.

The proposals to set up so many more or less expensive Advisory Boards and similar organisations in connection with meat, dairy produce, fruit, etc., exported from the overseas dominions is likely to largely absorb the results of such economies as their policy aims to affect.

The diverse roads leading to improved marketing of Australian and New Zealand produce seem to be beset with obstacles, and such a multitude of advisers are out to tender their opinions that it is little wonder the producer and shipper is somewhat bewildered and unable to sift the interested from the disinterested advice.  
Yours, etc.,

WM. J. WADE,  
Representative for Australasia for the  
Port of Manchester.  
Sydney, 4/11/24.

The wet spring and the absence of hot drying winds has caused an increase in the development of fungus insect pests. During November there was a pronounced shortage of nicotine sulphate and tobacco stems. Growers in the Goulburn Valley estimate that many thousands of pounds worth of damage had been done owing to the inability to spray with nicotine preparations.

Answers to Correspondents  
(Continued on page 571)

## Australasian Fruit in England

### AN INTERESTING REVIEW OF THE 1924 SEASON

A VERY INTERESTING REPORT, dealing with the 1924 Australasian fruit season in London is to hand from Messrs. F. W. Moore & Co. Ltd., Australian Merchants, London, which we have pleasure in publishing in full. Messrs. Moore & Co. state:—

The 1924 season closed with the arrival in London on 19th July of the s.s. "Port Chalmers"; it was a season fraught with unusual difficulties on both sides of the world—a short crop in Australia (in one State much damage), here extra heavy supplies from the U.S.A., but it eventually proved much better than anticipated. Fruit-growers may not regard it as very satisfactory, but results might easily have been worse, because had it not been that the extraordinary summer experienced in some parts of the Southern Dominions, particularly in Tasmania, was repeated in Great Britain, it is probable that profit on the season's trade would have been negligible.

Low temperature, lack of sunshine, very frequent and often heavy rainfall, which retarded growth and maturity of early summer fruits on this side of the globe, provided better openings for the later Antipodean arrivals, and when prices did improve they held up well almost to the end. If the s.s. "Port Chalmers" had arrived only three weeks sooner the cargo would have realised some thousands of pounds more, for not only would the fruit, Pears especially, have been in better condition, but the variety and quantity of British and European fruits were then of considerably lesser volume.

#### Dominion Preference Needed.

As our previous reports have shown, the earlier arrivals had to meet extraordinary competition from the United States; to a very slight extent from Canada. The latter would not have made very much difference, and as growers in that Dominion are in reality citizens of the same Empire, complaint of their competition would be unreasonable. It is an entirely different matter when a country which fixes hard and fast limits on the emigration of people, and practical embargo on so many exports from this country, is allowed the fullest freedom to send its surplus here.

Our reports are not meant to be political reviews, but this country and others which belong to it devote very large sums of money for the purposes of settlement within the Empire, and whilst the all-round desire is for closer settlement of the areas available, and not any industry can secure this better than fruitgrowing,

#### SUMMARY.

Dominion preference is advocated. With ten years of preference the Dominions would produce all the fruit necessary for United Kingdom.

The average quality of Australian fruit could be improved, but Great Britain can absorb all we send, including the "blemished" brand. Too much publicity was given to the latter.

The grand totals for the 1924 export season from Australia and New Zealand were 1,777,746 cases, as compared with 2,289,307 in 1923, a decrease of 511,561 cases.

Wider distribution of fruit in Great Britain is desirable.

The cause of "Brown heart" having been established, the Cambridge staff will now investigate Bitter Pit.

a policy of preference to the Dominions is plainly complementary.

We know well the arguments against it: that the Dominions cannot supply all the fruit the Old Country needs, and that many estimable importers would, for a period, have much less business in this connection; but without preferential treatment, what is given by one hand is taken away by the other, and the attractions offered by the newer countries of our "far-flung Empire" are neutralised, the Empire's coasts stretched to little purpose. When the Imperial Conference decided upon preferential duties, greater objections were raised by some fruit-importers than by any other trade section; they failed to recognise one of the best indications of statesmanship that emerged from the politicians of our Empire, as they entirely overlooked the fact that the proposals were designed to encourage and assist the spirit of adventure which tends to develop and strengthen British possessions.

It is, of course, true enough that, at present, much less fruit is produced within the Empire than this Old Country needs, but

Ten Years of Preference would ensure considerable alteration, probably give sufficient in Home and Dominions-grown fruit for the entire population of Great Britain, besides returning sentimental and full pecuniary satisfaction all round.

Instead of that, many think only of the present and their own immediate prosperity, they encourage and help those who do not contribute

to our enormous taxation, the greater proportion of which is needed to satisfy debt incurred to save the Empire, and now that "the war drum throbs no longer" forget that their own kith and kin flocked to the front in great numbers from all the Dominions in the hour of Britain's greatest need.

It is only fair to state that all are not alike; some there be who, deriving much of their trade and profit from foreign fruits, realise that the Empire can be made stronger and their own posterity benefit if our vast unoccupied territories are settled upon by our own people, who are anxious and willing to do so, if only they can see prospects of a market for their produce.

#### Quality of Australian Fruit.

Complaint has been made that the class of fruit sent here by the Dominions lacks quality, and care in preparation. Invidious contrasts are drawn to show that the foreigner sends his fruit in better style and quality, but whilst this is largely true, and of course so much more to the advantage of the sender, as time goes on both Home and Dominion fruitgrowers will find it pays best to send the best.

At the same time, it must be recognised that the vagaries of climate and weather often make it impossible for growers to send high quality, and if debarred from sending what a season gives them, they are faced with ruin. And, it should never be forgotten that, in this country there are some millions of people who cannot afford to buy high quality except when supplies are sufficiently large to bring prices within the limits of their incomes and resources.

This must not be taken to mean that we advise anyone to send bad quality or poor varieties; it is merely to show that there is in this country a market for everything; e.g., all the "blemished" Apples which came this year from Tasmania have been readily absorbed, and at an average price which leaves something for the unfortunate growers who otherwise would have been obliged to allow them to rot.

#### Australians in London.

Several Australian fruitgrowers who are on a visit to this country, and who naturally spend much of their time looking around Covent Garden and other English markets, see much British and foreign fruit meeting with ready sale that is not in any way better, very much of it indeed not so good, as the "blemished" Apples which came from the Island State.

Not one of these men, on returning to their own countries will, we feel sure, do other than advise their fellow growers to send the best they can, to improve packing, grading and general "get-up" to the utmost, but they have realised that there were buyers in plenty for all that came, and feel satisfied the "blemished"

fruit did not spoil the sale of that which was clean and of high quality.

At a meeting of Australasian fruit importers, called by the National Federation of Fruit Trades Associations, Mr. T. A. Frankcomb, of Tasmania, who (with Mr. W. H. Calvert, also of Tasmania), was present by invitation, asked the direct question: "Whether in the opinion of fruit merchants, the 'blemished' Apples spoilt the sale of the good?" The reply given was: "No, although if they had not come, the good quality fruit would have realised more money," but the reason given was: "Because the quantity of Apples would have been so much smaller if the 'blemished' had

teen years in succession, a fact sufficient in itself to show that, with such a name and record, Mr. Frankcomb would not advise any grower to send poor quality fruit if he could possibly after all; had there

"Blemished" fruit has not done badly after all; had there

been less fuss

about it in Australia, which so widely advertised it here, the average of prices for it would have been higher, less to justify excuses for low figures. Australian growers who thought they would benefit greatly if the shipment of "blemished" fruit had been prohibited should remember that Nemesis awaits; Nature may sometimes spoil their crops, and they will then consider it a great hardship if they are not allowed to chance their luck with poor quality fruit, and be compelled to let it go waste.

#### Grand Totals.

It will be seen that the Grand Total of shipments from Australia and New Zealand was 1,777,746 cases, compared with 2,289,307 last year, which is 511,561 cases less.

Pears show an increase of 94,946 packages as there were only 76,461 packages last year against 171,407 packages this year. Fifty-two (52) steamers were employed for the carriage, but the quantities ex "Narkunda" and "Balranald" were so small that the number is more fairly stated as fifty (50).

#### Transport Results Variable.

The carriage of Apples on the whole has been good, but still far from perfect, that of Pears very irregular, often extremely bad.

Grapes came in larger quantity, and, except those from Victoria, probably better than ever before; the Victorian bunches were too close to permit of fair insulation or separation by the cork-dust between the "berries," consequently they appeared to have become over-heated.

There were some bad parcels of Grapes from West Australia, perhaps they were gathered and packed whilst wet; some of the Victorian were in very unsuitable packages; the long flat tray-like package is decidedly the best.

Apples affected by "Brown heart" appeared in one cargo (s.s. "Surrey"), and although it seems to have been in one hold only, immediately its presence became known the whole cargo got a bad name, with the inevitable result. Some of the dessert Pears in the "Port Chalmers" had become "sleepy," evidently they had got beyond their life, and unfortunately had to compete with Williams' Bon Chretien coming fresh from France; some W.B.C. came also from California, although there was more waste than usual with the latter.

#### American Competition.

Some importers think that shipments should not begin so early; those whose engagements in the U.S.A. compel fulfilment of contracts,

would like to have Australasian arrivals postponed until May. In course of business it is very easy to hold back shipments from the United States whenever the markets in this country are weak; but against Bank Credits established there the Apples must come sometime, and so long as the arrivals from that country during the latter days of March and throughout April are frequent, and large in bulk, so long shall we see moderate to low prices for fruits from the Southern Dominions, especially for Apples during April and early May. Growers should, however, refrain from shipping immature fruit as it shows up very disadvantageously in comparison with fully matured Apples in the markets at the same time. Wider distribution of shipments is, we think, desirable as transport charges throughout the United Kingdom are very high, and it may be taken to be a certainty that, the nearer to the large consuming areas the steamers discharge it, the greater the quantity that will be pur-

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not been sent, prices would naturally have been better."

Fairly interpreted, the short meaning of this reply is that, when everything for and against has been said, it is entirely a matter of supply and demand. Mr. Frankcomb candidly said he was not at all proud of the fruit he had sent this year, although he had sent the best he had produced.

No grower throughout Australasia has a better name for good fruit and good packing than Mr. Frankcomb, perhaps not one with so good a record, as the late Mr. D. D. Pankhurst, who, in his business days, was one of the most prominent fruit merchants in this country, bought his fruit on periodic contracts for six-

## T. STOTT & SONS

### Fruit Merchants

Established 1882

A Trial Consignment solicited from Growers in all States.

Prompt Settlement.

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chased, even though prices may not show much difference.

#### Scientific Research.

Advertising to "Brown heart," it is stated that there is no need for further scientific investigation of that defect, as its cause is thoroughly well established and with proper precaution cannot occur, but it should be welcome news to fruitgrowers that the Cambridge scientific staff is to be employed upon investigating the cause of "Bitter Pit," which, if once overcome will avert heavy losses that yearly occur in the earlier shipments.

With this Circular we have pleasure in enclosing a copy of the reproduction of advertisements published by the National Federation of Wholesale Fruit Trades' Associations throughout the season. This should enable fruitgrowers and shippers to form an idea of the way their contribution to advertising was spent.

[Copy of advertisements received. The work is well designed and executed.—Editor, "F.W."]



**SULPHATE OF AMMONIA,** throughout the World, has always enjoyed a fair measure of popularity, as a source of the supply of nitrogen to plant life. **RECORD** Sales during the current season indicate its Australian reputation was never greater, and it may be fairly termed

## “The Ideal Nitrogenous Fertiliser”

Sulphate of Ammonia literature from—

The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney, N.S.W.; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co., Weymouth St., Adelaide, S.A.

### PRUNES AND PLUMS ON VARIOUS STOCKS.

#### Experiments in New South Wales.

Experiments with Plums and Prunes on various stocks were continued at Yanco (N.S.W.) Experi-

ment Farm during the season 1923-24. In the following table are indicated the results as affecting growth and crop; also the average height, spread and diameter of trunk of the different varieties on the four stocks used, every care having been taken to select trees of even size (states Messrs. W. J. Allen and W. W. Cooke

in the N.S.W. "Journal of Agriculture").

It should be noted that the Robe de Sergeant and Clairac Mammoth on Peach stock, having been "double worked," the development of the top is a year later than on the other stocks.

Variety.	Stock.	Growth.	Crop.	Height of		Dia. of Trunk. inches.
				Tree. ft.	in.	
Angelina Burdett . . .	Myrobalan	Fair	Good	11	9	10 0
" "	Marianna	Medium	Very heavy	8	8	8 8
" "	Apricot	Very good	Good	12	8	10 0
" "	Peach	Very good	Good	13	9	11 0
Clairac Mammoth . . .	Myrobalan	Fair	Good	10	8	8 7
" "	Marianna	Fair	Good	10	4	8 1
" "	Apricot	Good	Good	13	0	8 9
" "	Peach	Good	Good	11	3	9 0
President . . . . .	Myrobalan	Medium	Very heavy	10	6	7 6
" . . . . .	Marianna	Poor	Very heavy	8	8	4 8
" . . . . .	Apricot	Good	Good	10	10	8 0
" . . . . .	Peach	Good	Good	11	5	8 2
Robe de Sergeant . . .	Myrobalan	Fair	Good	9	8	5 10
" . . . . .	Marianna	Good	Good	11	6	9 4
" . . . . .	Apricot	Good	Good	12	0	8 6
" . . . . .	Peach	Good	Good	11	8	7 9
Prune d'Agen . . . .	Myrobalan	Good	Good	11	9	8 9
" . . . . .	Marianna	Good	Good	13	6	8 1
" . . . . .	Apricot	Very good	Good	13	8	9 5
" . . . . .	Peach	Very good	Good	15	0	9 11

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South Australian " " " A. W. Bowen & Co., Commercial Buildings,  
9 French Street, Adelaide.

New Zealand " " " Griffin O'Brien, P.O. Box 104, 89 Hardy Street, Nelson

Victorian " " " E. W. T. Adams, City Market Cool Store, cor. King  
and Flinders Streets, Melbourne.

## VICTORIAN CITRUS GROWERS.

## Associations and Secretaries.

The following is a list of Victorian Citrus Growers' Organisations as revised by the Central Association to 18th November.

Victorian Central Citrus Association Pty. Ltd., Secretary, B. S. B. Cook, 360 Collins Street, Melbourne.

District shareholders in the above:—

Mildura Citrus Growers' Association, K. A. Goodland, Secretary, Irymple.

Riverside Citrus Growers' Association, J. H. Morton, Secretary, Gonn Crossing.

Nyah Citrus Growers' Association, A. Fraser Gandie, Secretary, Nyah.

Swan Hill Citrus Growers' Association, A. Luke, Secretary, Swan Hill.

Tresco Fruitgrowers' Co-operative Association, J. P. Greenwood, Manager, Tresco.

Bamawm Citrus Growers' Association, P. Cobbett, Secretary, Lockington.

Kyabram Citrus Growers' Association, F. J. Churches, Secretary, Kyabram.

Madowla Citrus Growers' Association, Messrs. Cain Bros., Picola.

Shepparton Citrus Growers' Association, E. H. P. Kershaw, Secretary, Shepparton.

Meade Citrus Growers' Association, A. Walker, Secretary, Meade.

Cobram Fruit Packing Coy., J. G. Martindale, Manager, Cobram.

Perricoota Citrus Growers' Association, R. J. Watson, President, Perricoota.

Echuca Citrus Growers' Association, F. W. Howell, Secretary, Echuca.

Elmore Citrus Growers' Association, Hon. H. Keck, M.L.C., Elmore.

Tongala Citrus Growers' Association, T. C. Roddis, Secretary, Tongala.

Wangaratta Citrus Growers' Association, J. P. Larkings, Secretary, Wangaratta.

Delta Citrus Packers' Association, L. R. Strother, Secretary, Curlwaa, N.S.W.

## SAN JOSE SCALE.

(To the Editor, "Fruit World.")

Sir,—I have read with considerable interest, the answers set out by the various Departmental officers concerning a query from a reader at Dwellingup, W.A., asking a question concerning the control of San Jose scale, as soon as the fruit had set.

The late Mr. J. Cronin, whom you will agree was one of the most noted horticulturists, who had fruit growing under observation in Australia some sixteen years ago, did a series of experiments with a number of specifics for the control of San Jose scale.

Unfortunately, the data concerned in these tests, Mr. Cronin stated, was

pigeon-holed and lost. The writer was placing the data on test work for the control of San Jose scale before Mr. Cronin some few months before he died, and he stated that the details of the work agreed precisely with the results obtained at Wandin and other districts by him some sixteen years ago.

San Jose Scale is probably one of the most vicious attacking fruit trees, in so much that it will kill a Peach tree in two years, if allowed to go unchecked under favourable conditions. Further, it will destroy whole limbs in Apple and Peach trees in the same time.

As the result of tests conducted in a number of districts throughout Australia, I have no hesitation in stating that San Jose scale on Peach, Pear and Apples trees can be controlled with Gargoyle spraying oil at a strength of one in 20. The time of application is, on badly infested trees, immediately the trees are defoliated, following by spraying with a one in 25 solution, just anticipating the bursting of the bud. On trees that are not badly infested, the one spraying in the spring with a one in 25 solution is quite adequate to control.

I will be pleased to give your correspondent any additional information desired.

(Sgd.) W. H. MURRAY,  
Horticultural Dept., Vacuum Oil Co.  
Melbourne, 7/11/24.

## FRUIT GROWERS

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**THE FRUIT FLY PEST.**

**Victoria Guards Against Re-infestation.**

**Useful Hints for Growers.**

Mr. J. M. Ward (Superintendent of Horticulture for Victoria) has advised that in view of the possibility of Fruit Fly making its re-appearance in the near future, it is of the utmost importance that fruitgrowers should be thoroughly alive to this danger.

In this connection growers are advised to place in their trees suitable vessels containing lures known to be attractive to the fly. These, in addition to capturing any fruit flies that may be present, enable the grower to at once know that the pest is present, and, as being forewarned is being forearmed, this in itself should be of great benefit to growers.

In addition to the placing of any of the following lures, it is recommended in the event of fruit flies being proved to be present, to use a poisonous spray at intervals. The latter will destroy flies that have recently emerged from the pupa stage, as at this stage the fly feeds greedily for several days before the egg-laying stage is reached and many flies can be destroyed by these means.

The following spray is recommended:-

Sugar, 2½lbs; Paste Arsenate of Lead, 3oz; Water, 4 gallons. Spray a portion of tree every ten days, and always again immediately after a rainfall.

The Following Lures are Recommended:-

(a) Treacle, 1oz; Orange juice, 40oz; Apple Essence, 8 drops.

(b) Treacle, 1oz; Orange juice, 40oz; Pear Essence, 8 drops.

Mandarin juice may be used instead of Orange juice. Sulphurous acid or Salicylic acid (either one or the other but not both together) 2 grains to the pint will preserve Orange juice. Either of these can be obtained at the local chemists. Harvey's Lure (Stone Fruit) 1 part to 3 water. Harvey's Lure (Citrus Fruit) 1 part to 3 water.

(c) Pollard, 4lb; Molasses (optional), 4oz; Arsenate of Lead (optional), 4oz; Powdered Borax, 8oz; Water to make 4 gallons.

Where glass fly traps are not available, tins (lidded) with turned down edge give much better results than plain edged tins.

**FIREBLIGHT IN NEW ZEALAND.**

Trouble not Spreading.

Fireblight (*Bacillus Amylovorus*) has unfortunately got a hold in New Zealand. Reassuring advices however, are to hand from Mr. J. A. Campbell, (Director of the Horticulture Division of the New Zealand Department of Agriculture) under date 3rd November. Mr. Campbell states that the disease has not spread beyond the area first infected, and that last season the Department did considerable work in the cutting back and clearing of Hawthorn hedges in certain fruitgrowing areas. The result was that fireblight caused comparatively little trouble, but whether this was due to the precautionary measures taken or to the state of the season not being favorable to fireblight development is questionable.

Possibly, the question may be more readily determined after the blossoming period of the current year has passed, and any infection that has taken place in the meantime, has had time to develop. This will be ascertained early in December, when further details will be available.

**FRUIT IMPORTS INTO GREAT BRITAIN.**

The United Kingdom imported 26,000,000 hundredweight of fresh fruit, valued at £26,000,000, in 1922, according to figures compiled by the U.S.A. Department of Commerce. Three million boxes of this fruit came from the United States.

Final figures for the Apple season of 1922-23 show 3,245,404 boxes, and 1,681,985 barrels imported, an increase of 24 per cent and 37 per cent. respectively, on the previous season. Canada shipped in the equivalent of 4,566,560 boxes of 40 pounds each in 1922. English home-grown Apples from July to March amounted to the equivalent of 8,500,000 boxes of 40 pounds each, equaling the combined imports from the United States and Canada. Probably one-half of this quantity is competitive with the imports.

**Safety First**  
to Foliage**Save Your Crops**  
from  
**BUGS AND BLIGHTS****DRY DUST YOUR VINES**  
AND TREES

WITH

**GREEN CROSS**  
**SULPHO-ARSENATE**  
**POWDER**

It protects from many forms  
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— and —

Destroys Leaf-Eating Insects in  
One Operation.

**NO WATER REQUIRED**

Can be supplied in 1-lb Sifting  
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**LINING PAPER FOR FRUIT CASES**

... WHITE OR CLEAN PRINTED NEWSPAPER ...  
is now available in large quantities for immediate delivery.

White, cut to size 13 x 42 or 18 x 25. Printed, uncut. Prices on application.

The printed news consists of "Argus," "Age," "Leader" and "Australasian" new, undistributed copies, and therefore is perfectly clean. Cases for fruit neatly lined have an increased selling value.

Prompt enquiries requested to

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Doncaster.

# Poultry and Beekeeping



## Poultry Notes.

### BREEDING.

#### Making a Start.

THE SHAPE of the block, the area available, the aspect and the general direction of the fall, all require close attention when deciding upon the location of the buildings and yards. The best site for poultry other things being equal, is a slope with a north-eastern aspect, free from broken ground or rocky declivities, having a clear opening for the morning sun to reach the yards. Flats and hollows are not suitable positions, especially when the ground is of a clayey nature.

High positions give decidedly the best results in winter egg production. It will take some substantial advantages in other directions to balance the handicap of a bad site. According to its size, too, every poultry site should have its cultivation area, for the purpose of at least growing all necessary green feed.

In a handbook issued by the N.S.W. Department of Agriculture, the following main points in the selection of a site are laid down:—

1. A northern or north-eastern aspect is best.

2. Give preference to high ground with a gentle slope, not too much exposed to south-west winds.

3. Secure good surface drainage, and avoid seepage at the foot of hills.

4. Give preference to sandy soils as against those of clay formation.

5. Avoid flats and gullies.

6. Rocky positions will be found troublesome in the matter of erecting fences and laying out the farm generally.

7. Give preference to land in its virgin state over that which has been cultivated.

8. Remember that adequate provision for water is a very important factor.

#### Points in Starting.

1. However small the farm, a ground plan should be prepared before any buildings or fences are erected. This plan should provide room for the extension of every class of building it is intended to erect, and the possibilities in this direction should be well thought out.

2. If means will allow, it is more economical to construct buildings of a permanent character. Such buildings should be worth their cost many years after construction.

3. Avoid narrow lanes and passages; they mean a quagmire in wet weather, and a congested farm at all times.

4. Avoid constructing buildings of too great a length. About 60 feet should be the extreme limit of a brooder house, and 14 feet is a good width. About 100 feet is the limit to which it is advisable to go in continuous roosting houses. In these, partitions at intervals will be required.

5. Poultry houses should not be less than 6 feet high at the front and 5 feet at the back. This height is for narrow houses. In the case of wider houses a foot higher is advisable.

6. The ground plan of a poultry-farm should be so arranged that the rearing ground for chickens shall not at any time be occupied by adult stock.

7. A small area should be set apart for cultivation, to grow greenstuff; the balance of the land is best left undisturbed in its original condition.

#### One Way to Start.

Undoubtedly the best way to commence poultry-farming, when experience has to be gained, is to start at the bottom—that is to say, start with a few breeding pens of well-bred stock, and give the first year to hatching a stock of breeders for the following season. In this way much experience will have been gained before spreading out into larger numbers.

## Bee-Keeping.

### Some Points on Swarming.

**S**WARMING IS NATURAL, and this fact accounts for the majority of swarms.

There are other causes of swarming, however, over which the apiarist has control. Amongst these are a congested condition of brood chambers and supers, cramping the queen for laying space, and the workers for storage room, inadequate ventilation and aged queens. Neglect to shelter hives in unusually hot weather also tends to swarming.

When colonies are seen to be frittering away the season in repeated preparations for swarming, it is best to divide the colony artificially. The presence of queen cells in a hive during the swarming season is a pretty sure indication of their intention to swarm. The finding of a capped cell denotes a probable swarm almost immediately.

The swarm leaves the hive in a thick stream, and after circling about in the air, usually forms a compact cluster about the queen, often on the bough of some neighbouring tree. Occasionally the bees are disinclined to form a cluster, and an attempt should then be made to induce them to do so, otherwise they are likely to make off.

A good method of bringing bees down is to spray them with water from a garden syringe. After the bees have clustered they should be hived at once, as after hanging any length of time they usually break up and wander.

The hiving is usually accomplished with the aid of a light skep or a box, and if the cluster is suspended low down, it is an easy task. The skep is held close under the bees, which are then dislodged by one or two vigorous shakes of the bough. The skep should then be placed on the ground right way up, and propped up a little at one side by means of a stone.

This forms an entrance, and the skep should be left in that position in order to collect any stragglers that may be flying around. If the sun is hot it should be shaded, and at night may be removed to the position which the bees are to permanently occupy, and the swarm placed in a frame hive.

#### Spring Losses.

Some districts in Victoria, and probably in New South Wales, have experienced heavy losses in bees during this spring. These losses (says the "Victorian Bee Journal") occur in different districts at intervals of several years; in others only at long intervals, as in our own case, 1900 and 1924.

This refers particularly to the country north and west of the Dividing Range, and East Gippsland—in other words to some of the best honey country. The coastal country and much of the country producing inferior grades of honey seem to be singularly free from this trouble; in fact, the only trouble there appears to be periodical starvation, which is preventable by feeding.

Bees, like animals, require two kinds of food—(1) Heat and energy-producing foods (carbo-hydrates), which they obtain from the nectar of flowers, or as a good substitute cane sugar; (2) Flesh forming foods (nitrogenous compounds), which they get from the pollen of flowering plants, and for which no satisfactory substitute is known. Now, it is well known that adult bees can live on pure sugar alone for a long time, during periods of inactivity, but not a

# WISE COUNSEL

## from 500,000 Poultry Keepers!



Wherever hens lay eggs, it's an axiom that healthy birds make healthy profits. There's little need to dilate here to that effect, but the counsel we offer is the counsel of 500,000 satisfied poultry keepers

throughout the world, and concerns the best and cheapest method of giving your birds that fine, energetic, vigorous good health that is the fundamental of successful poultry keeping.

Right at this moment, when egg production is at its highest annual peak, thousands of Australian poultry keepers are taking steps to safeguard the health and productivity of their flocks six months hence. They are looking forward with a realisation that the heavy strain of summer egg production quite possibly may spell disaster at the moulting period, and in the winter months. NOW they are feeding Karswood Poultry Spice. Why? Because their own experience has proved these five resultant benefits.

Excellent health; steady, year 'round egg laying; rapid progress for the chicks; early maturity for the pullets; and for the adults an easy and quick transition from the moult to the laying period once more.

—And all this at what small cost! One-twelfth of a halfpenny per day

per bird! A ha'penny per day for every twelve! It is astonishing, yet none the less a fact, established in many years of testing and proving.

Here is the counsel of over half a million users. "Use Karswood Poultry Spice the whole year round for Health and Profit."

Take it well to heart! Start using Karswood to-morrow, and watch improvement in your flock. Do not expect immediate results. Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results—but they are good and sure. Within the time specified you will notice indications of vigour and eagerness for food—a tightness in feather and a plumage that is good to see. Continue as directed, and your small outlay will be many times returned in bigger, better profits all the year.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens 16 days.  
2/- packet supplies 20 hens 32 days.  
18/- tin (7 lb.) supplies 140 hens 32 days.  
14 lb. tin, 25/-; 28 lb. tins, 48/-.  
Costs a Ha'penny per day for every 12 birds.

### Agents:

N.S.W.: Coastal Farmers' Co-op. Sty. Ltd., Quay Street, Sydney.  
Vic. & Tas.: Henry Berry & Co. Pty. Ltd., Collins Street, Melbourne.  
S.A.: S. C. Eyles & Co., Currie Street, Adelaide.  
W.A.: Westralian Farmers' Ltd., Wellington Street, Perth.

### APPRECIATION.

#### A BRILLIANT RECORD.

Dear Sir,—

After several years' use of Karswood Poultry Spice, I think it my duty to you and all poultry keepers to give you my experience re same.

I have had 26 years in the poultry business, and carry 300 birds and 700 chickens each year.

I have given your famous Karswood to my breeding hens with wonderful results; last season, my fertility was remarkable—securing over 90 per cent. of strong, vigorous chickens, and during this winter gathered 78 to 80 dozen eggs per week at 3/-.

Yours faithfully, V. H. WHITEWAY,  
King's Meadows, Launceston, Tas.

#### ALL YOU CLAIM IT TO BE.

Dear Sirs,—

Will you please send me the price of your Karswood Poultry Book. I am a user of your poultry spice, and find it a great egg producer.

I tested the use of it by giving it to a breeding pen of six pullets and cocks (B.O.'s) and last week my total was 41. From another pen (with 15 B.O.'s) in it, without Karswood, I secured only 51 for one week.

I have found out the spice is all you claim it to be. Wishing you every success.

Yours faithfully, L. J. COLEMAN,  
Don Road, Devonport, Tas.

### CAN THIS BE BEATEN?

Dear Sir,—

Can this be beaten?

My six chickens were born in the middle of December, 1922, and at three months I added Karswood Spice as directed to their food.

They commenced laying on the 20th of May, 1923, the sixth hen commenced laying in July and to date (less than three months) I have received 296 eggs.

I've read many recommendations for Karswood in the Victorian Poultry Journal, but not equal to this.

For the 15 days of this month, 67 eggs have been produced, thanks to Karswood.

Yours faithfully, C. H. NEVILLE,  
15 Gordon St., Brighton Beach, Vic.

**KARSWOOD Poultry Spice**  
Use it the Whole Year Round

single larva can be reared, nor can the queen lay eggs without nitrogenous food. There are many different sugars, and the number of nitrogenous foods is legion; and experiments carried out recently by Dr. E. F. Phillips, of the United States Department of Agriculture, have demonstrated that adult bees may die of starvation on a diet of certain sugars, and that pollens from plants grown under certain conditions may contain starch grains which are indigestible to bees.

Furthermore, it is probable that both nectar and pollen produced under abnormal conditions of climate or soil may be deficient in one or other of the principles now considered essential to animal life, and known as Vitamines, or may even develop actually poisonous substances.

When bees have a choice they will doubtless instinctively exercise a preference for what is best for them and avoid what is harmful. When, how-

ever, there is no choice, they may, like animals, make use of foods they would otherwise ignore. We know that it is so with bees in regard to fruit juices, but as to the use of unsuitable nitrogenous foods—the pollens of different plants—upon which the vitality of the coming generations and the conversion of the nectar into honey depend, we know nothing yet.

## Pig Raising.

### Care of Young Pigs.

**A**N inflammation of the lungs, due to infection by an organism—*infectious pneumonia*, when it makes its appearance on a farm, generally affects several of the young members of the herd of swine. It does not usually spread from one farm to another, unless the conditions are suitable for its development. The

germ (says "Vet," in "The New Zealand Farmer") gains entrance to the pig's system with either food or water which has become contaminated. When young pigs become affected with the disease, they are constantly coughing up the germs, and so spreading the complaint. Young, vigorous animals are seldom attacked, but if they are in unfavourable and unsanitary quarters, and exposed to cold and wet, they are liable to suffer, as those conditions lessen the power of resistance.

The young pigs affected are obviously feverish—they breathe more rapidly than is normal, they cough when moved about, or when they rise to approach the feeding trough. The fever, which accompanies this disease, makes them very weak, and they lose all appetite, and quickly succumb.

Other affected pigs continue to cough, and to lose condition, even

# "HARVEY" IMPLEMENTS for Orchard, Vineyard and Farm Cultivation

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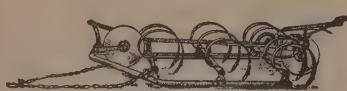
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NO. 10 S.F. GENERAL PURPOSE PLOW.  
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With shifting or fixed handles. Made in  
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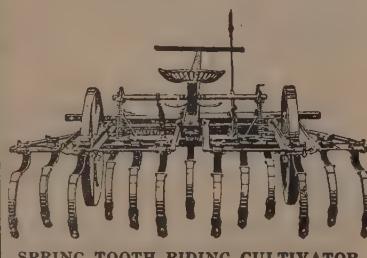
"HARVEY" SPRING TOOTH CITRUS  
ORCHARD CULTIVATOR.



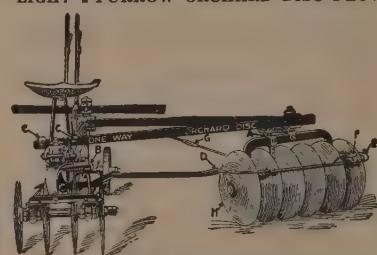
LIGHT 2-FURROW ORCHARD DISC PLOW.



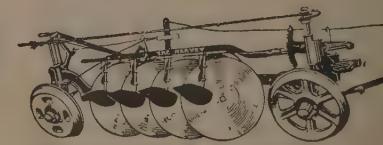
"HARVEY" 2-FURROW SHIFTING  
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though as time goes on they regain their appetite.

The remedy is chiefly preventive. Remove the young pigs which are unaffected, to dry, sheltered, comfortable quarters and supply the best of food. It should be remembered that if the diseased pigs are allowed to live, the attendant can convey the disease from them to the healthy animals, so that it is usually the wiser course to destroy those that are diseased, to thoroughly disinfect the shed that has been occupied by them—even the burning of the building may be recommended—and to spread and burn straw in the yards.

The disease is distinguished from tuberculosis, because it attacks only the young pigs, and several, possibly all, of the litter become affected. It is invariably associated with damp and insanitary surroundings, whereas tuberculosis may develop in pigs of any age, and under the best of circumstances, if they are subjected to infection from cattle or other pigs.

#### SOUTH AUSTRALIA.

(Continued from page 536.)

##### Eden.

Writing from Eden, S.A., Mr. C. H. Ragless reports that the principal fruits grown in that district are Grapes (Muscatel, Grenache, Doradillo), Almonds (Brown and White Brandes) and a few Apricots and Peaches.

With the exception of the Doradillo variety (which is light) Grapes are expected to yield a similar crop to last season, when the return was heavy, in spite of the large quantity which was spoilt by the excessive rain during the summer months. The fruit having had to be left on the vines. Apricots are anticipated to produce a heavier crop than last season, and an average return of Peaches is expected.

##### Coromandel Valley.

All stone fruits, Apples, Pears and berries are grown in this district

(writes Mr. Geo. W. Summers), it being particularly well suited to the cultivation of this product.

The coming crop of Apricots is anticipated to be heavy, and much more plentiful than last year, but as regards Peaches and Pears, these will probably be a great deal lighter. Apples are expected to be fair to medium. Owing to the changeable weather the Black Spot is very bad this season, making spraying work very difficult. Curl Leaf and Shot Hole are also very prevalent.

##### Belair.

Mr. G. R. Laffer states:—Apples, Pears and Plums are the principal fruits, whilst Peaches, Apricots and Nectarines are cultivated to a lesser extent.

**Crop Prospects.**—Apples and Pears light. Plums, good. Apricots, good. Others very light.

Apples and Pears show signs of being much lighter than last year.

Fungoid diseases have been very difficult to control owing to the prolonged rainy weather which occurred during September and October.

**Nuriootpa.**—Apricots, heavy; Apples, medium; Pears, medium (patchy); Peaches, light; Plums and Prunes, medium to fair. On the whole, crops are lighter than last year.

##### Paradise.

The report of Mr. J. Donaldson, of Paradise, near Adelaide, is as follows:—The principal fruits grown in this district are Apricots, Peaches, Nectarines, citrus of all kinds, Cherries, Plums and berry fruits in practically all varieties.

The season's prospects show indications of there being heavy fruit crops all round. In regard to Apricots, Newcastle, Oullin's and Moorpark are the chief varieties, the latter being used for jam purposes, and a few for canning. The two former varieties are consumed on the markets.

**Peaches.**—There being a good demand for a canned freestone, the Elberta has been largely planted with other assorted kinds in order to keep up a constant supply on the market. The green aphis and curl leaf have been very bad this season, affecting the crop in a great many cases, but on the whole the yield will be heavy.

**Plums.**—A good medium crop of Plums is anticipated, although in some places they are light.

**Pears.**—The heavy bloom gave indications of a good crop of this fruit, but disappointment has resulted on account of the severe storms experienced recently, causing many of the blossoms to fall.

Generally speaking, it is thought that the district will produce double the quantity of fruit this year as compared with 1923.

# CHEVROLET

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### ONE-TON CHASSIS

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12 cwt. Chassis - £195

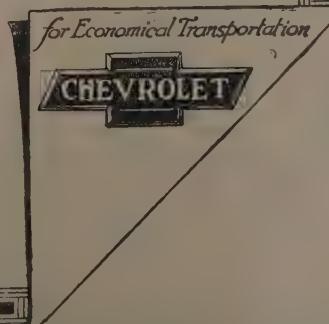
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- 1st.—A multitube air heater, tubes always clear of soot and dust, hence efficiency high.
- 2nd.—An air-tight tunnel through which trucks on rails carry the stacked trays of fruit.
- 3rd.—Suction fan to draw the heated air through tunnel at required velocity.
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- 5th—Method of returning all or portion of air drawn through tunnel which controls the humidity.

Write to Manager, Nindelhana Orchard, Batlow, N.S.W., or inspect there a two ton capacity in 20 hours machine which efficiently dries prunes at above rate and embodies the above features. —

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WORKS AND OFFICE:

**REGENTS PARK, N.S.W.**

## ANSWERS TO CORRESPONDENTS.

**Grafting of Grapes.**—A correspondent at Griffith, N.S.W., asks the following questions:—

- (1) What Grape could be put on a Sultana, and how long would it take before one would get a crop off them?
- (2) How many tons goes to the acre?

**Answer** (by F. de Castella, Victorian Government Viticulturist):—

(1) There is little information available as to the value of the Sultana as a stock on which to graft other vine sorts. Until the recent decline in Sultana prices, indeed, the reverse operation was the usual one, i.e., the Sultana played the part of scion, being grafted on to other sorts.

Cases are on record where Ohanez, Waltham Cross, Centennial and Malaga have been grafted satisfactorily on Sultana stock. In a general way, however, the Sultana is only an indifferent stock. Vines grafted on it do not seem to bear heavy crops; they yield distinctly less than if grafted on resistant stocks or even on Zante Currant.

The vines will bear some fruit at the "second leaf" after grafting—in other words, 18 months after this operation, if performed in spring. A year later they will be in full bearing.

(2) It is impossible to forecast the probable yield per acre, as this varies much according to variety, land on which the vineyard is planted, etc.

## ORCHARD REGISTRATION.

To the Editor Fruit World,—

Sir,—The chief obstacle to the adoption of the orchard registration scheme of the Victorian Fruitgrowers Central Association is its impracticability.

Each District orchard inspector is to inspect every orchard in his district before 1st July and assess the acreage, and issue assessments both to the growers and the "local secretary." This is an enormous task. Between 80,000 and 90,000 acres would have to be gone over and the inspectors would not be able to cover the ground unless they were relieved of all their other departmental work. Could any Government afford to set

aside the important tasks of the inspectors to enable them to cope with this burden?

Then there is no definition of who is a "local secretary." There are districts of fruitgrowers where there are no organisations. On the other hand, there are districts in which there are several organisations. In the latter case, who is the official local secretary to receive the assessments?

A further and most serious objection is that no proper basis is suggested for the division of the proceeds. They are to be "divided between (A) local organisation, (B) sectional associations and (C) the State Board or Central Executive according to the discretion of the Central Executive." What are the plans to make this "Central Executive a truly representative body entitling it to decide these important matters on behalf of each and every section of the Fruit Industry? Is it to be the judge of what is a local organisation or a sectional organisation and what proportion each is to receive from the tax? It might also be pointed out that if the State Fruit Board is to be given some of the proceeds from this tax on the growers, the other interests (local distributors, exporters and manufacturers) represented on the Board should also be asked to contribute towards its expenses.

Now let us consider the alternative proposition.

The request that the Government should collect the tax (which has now been accepted by the V.F.G.C.A.) eliminates all expense so far as the growers and organisations are concerned. Growers should simply be required to obtain forms in the same way as they do for both Federal and State income or land taxes, and to fill in the acreage they have under different varieties of trees, at the same time making the usual declaration that the details are correct as they do with their income or land tax schedules. They would then forward these returns to the Government and in due course they would be called upon to pay the amount assessed at 1/- per acre.

When the Government is in possession of the details of the varieties of

trees planted, the division of the proceeds of the tax becomes an easy matter. Each sectional organisation should receive the whole of the amount collected in respect to the variety of fruit it represents. It is absurd to say that because a man grows Oranges and Lemons near Melbourne and markets them in the Victoria Market he has no duty towards the Citrus Association. That body is controlling his market for him and preventing the Victoria Market being flooded with citrus from the districts further inland and from other States. As a fact 40 per cent of the citrus that reaches the Western Market from the far inland centres is also sold on the Victoria Market. There could be no objection to a grower who has a mixed orchard exercising his discretion which organisation he should belong to. It is fair and proper, however, that the proportion of his tax which relates to his citrus, should go to the Citrus Association, the proportion that relates to Pears should go to the Pear Association, the proportion that relates to berries should go to the Berry Association and the same with Apples and other classes. In this give and take arrangement all organisations will receive the proportion of the tax that rightly belongs to them. It is most important to remember that the sectional organisations are doing all the work for their sections, and growers with mixed orchards will surely not be slow to recognise the justice of the proposition.

The suggestion that a Departmental Board should decide which of the organisations are entitled to participate in the proceeds from the tax is put forward as a safeguard of existing and well established bodies. It is conceivable that there might be mushroom growths of fruit organisations to grab some of this money, and all will admit that an impartial Board is the best body to decide whether claims to participate are well founded.

The only object I have in making these suggestions is to ensure a practicable and economical scheme if Orchard Registration is to come about. (Sgd.) B. S. B. Cook,

Secretary, Victorian Central Citrus Association, Pty. Ltd.

## STONE FRUITS CITRUS TREES and QUALITY ROSES

### BEFORE PURCHASING

for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

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## LASSCOCK'S NURSERIES

Henley Beach Road,  
LOCKLEYS, STH. AUSTRALIA

send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed

## QUEENSLAND.

(Continued from page 535)

Mr. W. Ranger, Manager, Committee of Direction of Fruit Marketing writes.—“details of some of the crops that we are handling are not yet to hand, but in general the crops in Queensland this year are heavy and the season appears to promise for a record yield of practically every fruit.”

## STANTHORPE DISTRICT.

An esteemed correspondent at Applethorpe reports under date Nov. 17th.—The Stanthorpe District is really two districts, viz.—North of Stanthorpe and South of Stanthorpe.

## ORCHARD FOR SALE

Close to Melbourne

Satisfactory arrangements for the management of the greater part of the extensive

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## WHEELER'S HILL

have been made and it has been decided to sell a part of the area Z (about 40 acres of ten year planted trees) showing

GOOD CROPS OF CLEAN FRUIT, INCLUDING THE FOLLOWING VARIETIES

## APPLES

JONATHAN, KING DAVID, G. AVENSTEIN, DELICIOUS, STAYMAN, COX ORANGE, ROME BEAUTY, FIVE CROWN, YATES

## PEARS

WILLIAMS B. C., HOWELL, PACKHAM T., CLAPP'S FAVORITE, COMICE, CORONA, BÜERRE BOSC

The orchard is within carting distance of Victoria, Western and other Metropolitan Markets and near local railway stations for export fruit.

Surrounding land is increasing in value. It is between two railway lines and there are many attractions in the neighborhood. It is about 10 miles from the seaside, 6 miles from Fern Tree Gully and the ranges (Sassafras, Olinda, &c.) 6 miles from Dandenong, 6 miles from Oakleigh, 8 miles from Ringwood.

There are many excellent roads and the scenery is picturesque.

For price and full particulars apply to the owner,

Mr. S. STOTT, 91 William St., Melb.

Apples are chiefly grown in the northern part and also considerable quantities of Peaches and Plums with small areas of Apricots and Grapes and Pears.

Peaches and Plums and Grapes are principal fruits in the southern part, and also Apples, especially at Enkey.

The principal varieties of Apples are Jonathan, Granny Smith, Delicious, Gravenstein, Statesman, Winesap, Rome Beauty, Dunn's and Williams' Favorite.

Pears.—Chiefly Williams.

Peaches and Plums.—All leading varieties and in recent years large areas of best Jap. varieties have been planted, such as Shiro, Wilson and Santa Rosa.

## Crop Prospects.

Apples.—Heavy, nearly all kinds.

Peaches.—Medium.

Plums.—Heavy in most districts.

Grapes.—Promise to be heavy.

Apples will be much heavier, last year's crop was very light—Other fruits about same as last year.

Large areas of Tomatoes are being planted.

At the request of a Tomato growers' conference the Committee of Direction has decided to run a Tomato pool for this district.

Grade standards for Tomatoes have recently been gazetted and should reduce the quantity of inferior fruit sent to market.

The Deciduous Sectional Committee (under the Fruit Marketing Act) have agreed to and requested certain standards to be gazetted for deciduous fruits, and such will probably be in operation during the current season and ought to assist in improving the quality of fruit sent to the various markets.

The appointment of a markets' officer in Brisbane by the Committee of Direction will give general satisfaction to fruitgrowers. It is probable that the Committee of Direction will establish their own floor in Rockhampton shortly.

The extension of the North Coast railway to Cairns ought to provide a new outlet for Stanthorpe produce.

At present the district is experiencing too much rain and fruitgrowers would appreciate a spell of bright

weather. Vegetable crops look well and the season promises to be a good one.

The recent announcement that the Commonwealth Government does not intend to remove the prohibition of American Apples has given satisfaction to growers.

Your Queensland contributor appears to be unable to distinguish between the Government, Council of Agriculture and Committee of Direction.

The latter is an absolutely independent body (except to the fruitgrowers who elect the Committee) and your remarks concerning the probability of Mr. Ranger being subjected to political pressure is sheer nonsense. He is appointed by the Committee and the Government does not administer or interfere with the Fruit Marketing Act in any way.

## Dehydration.

Attention is drawn to the “Ideal” Dehydrator, which is advertised by Messrs. Babcock and Wilcox Ltd., on page 570 of this issue. Some of the outstanding good points about this drier are (1) A multitube air heater; (2) an airtight tunnel through which trucks on rails, carry the stacked trays of fruit; (3) Suction fan to draw the heated air through tunnel at required velocity; (4) Air locks at entrance and exit of tunnel; (5) Method of returning all or portion of air drawn, through tunnel which controls the humidity. Further information will be gladly given by writing to Messrs. Babcock and Wilcox Ltd., Regents Park, N.S.W.

**“Bave-U” Power Sprayer.**—Messrs. Russell and Co., Box Hill, Vic., have received advice from Mr. T. C. Stevens, of Nyah, to the effect that he is well satisfied with his “Bave-U” Power Sprayer. He states “the engine still runs like clockwork, and gives no trouble.” Mr. Stevens has had his pump since July, 1921.

Home is the one place in all this world where hearts are sure of each other. It is the place of confidence.

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Distributing Agents for A.D.F.A. SUNRAYSED FRUITS

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## British and Australasian Market Reports.

### London (10/10/24).

Mr. Gerald Da Costa, Covent Garden, reports, under date, 10/10/24:—

English Apples, 5/- to 9/- per bushel; Pears, 4 to 8/- ½ bushel; Grapes, 1/- to 6/- per lb.; South African Oranges, Navels, 30/- to 35/- per box; Seedlings, 25/- to 28/-; Late Valencias, 27/- to 32/-; American Apples, 10/6 to 18/- per box; Canadian, Nova Scotian, Gravenstein, 12/- to 25/- per barrel; Ribstons, 14/- to 26/-; British Columbian, C.O.P., 16/- to 20/- per box; others, 13/- to 16/-.

### London (3/10/24).

Messrs. T. J. Poupart Ltd., Covent Garden, report as follows, 3/10/24:— English Apples, Worcester, 8/- to 10/- per half-case; Allingtons, 4/- to 5/-; Ribstons, 6/- to 8/-; Cox's, 14/- to 18/- and 5/- to 6/- per tray of 12, 15 or 18 fruits; Derby's, 6/- to 9/-; Lane's, 6/- to 10/-; Warner's, 8/- to 10/-; Pears, Conference, 5/- to 7/-; Calabasse, 5/- to 8/-; Louise Bonne, 5/- to 6/-; Capiaumont, 4/- to 5/-; Beurre Hardy, 5/- to 6/- per half; with trays of excellent Comice, 12/- to 15/- per dozen; Grapes, Muscats, 2/- to 2/6 per lb.; very good, 3/- to 5/-; Canon Hall, 2/6 to 6/-; Alicante, 10d. to 2/-; Peaches, high colored, 12's, 30/- to 42/-; medium 18/- to 24/-; 15's, 15/- to 24/-; 18's, 10/- to 15/-; 24's, 8/- to 10/- per doz.

### Liverpool (24/10/24).

Messrs. J. C. Houghton & Co., 1 Temple Court, report prices ruling as follows:—American Apples, per barrel, Virginian, York, 20/- to 37/6; Jon., 25/6 to 43/-; Winesap, 26/6 to 34/-; Bonum, 27/- to 40/-; Kinnard, 34/- to 39/6; Box Apples, Jon., 13/- to 19/9; Gravenstein, 13/6 to 17/9; King David, 13/- to 16/9; C.O.P., 14/3 to 16/6; Wealthy, 11/- to 16/-; British Columbian, C.O.P., 12/- to 20/6; Wealthy, 14/- to 16/-; Pears, Anjou, 40/- to 58/- per barrel; Bartlett, 52/- to 57/-; Winter Nelis, 23/- to 27/6 per box; Comice, 16/6 to 28/-; Grapes, Almeria, 7/8 to 17/3; Lemons, 16/- to 22/6 per case.

### Liverpool (3/10/24).

Messrs. T. J. Poupart Ltd., report prices realised at Liverpool were:—

Apples, Lord Derby, 8/- to 9/- per bushel; Warner's, 7/- to 9/-; Coronation, 7/- to 8/-; Wealthy, 6/- to 7/-; Annie Elizabeth, 6/- to 8/-; Bramley's, 7/- to 9/6; Pears, Hassle's, 1/6 to 2/- half bushel; Beurre Bosc, 2/- to 2/6; Fertility, 2/- to 3/6; Beurre Hardy, 3/- to 4/-; other, stewing, 1/6 to 2/6.

### Canadian Fruit.

### Canada (20/10/24).

The following telegraphic reports were cabled by the Canadian Fruit Trade Commissioner in England to the Department of Agriculture, Ottawa, Canada.

## The Fruit World of Australasia.

### London (17/10/24).

N.S. Apples, Gravenstein, 7/6 to 22/6; Ribston, 13/- to 26/3; Wealthy, 13/- to 19/6; King, 13/- to 28/-; Blenheim, 15/- to 27/-; Cox Orange, halves, 15/- to 32/9; Cal. Newtowns, Nos. 1 and 2, 10/3 to 11/3; Washington Jons., Ex Fancy, 11/3 to 14/-.

### Liverpool (17/10/24).

N.S. Apples, Wolf River, 11/3 to 18/6; Gravenstein, 11/6 to 24/3; King, 13/- to 28/-; Blenheim, 12/- to 22/3; Ribston, 9/3 to 19/9; Greening, 10/3 to 25/9; Baxter, 28/-; Wealthy, 22/6; Ontario, 12/3 to 21/6; U.S.A. Apples, barrels, Virginia, York, 19/9 to 25/3.

### Glasgow (16/10/24).

B.C. Apples, Jon., 10/9 to 13/-; McIntosh, 12/-; Yellow Newtown, 8/9 to 10/-; U.S.A. Apples, boxes, Washington Jons., 8/9 to 14/-; barrels, Virginian, York Imperials, 18/6 to 22/6; Winesaps, No. 1, 23/3 to 28/-; Ben Davis, No. 1, 18/6 to 23/3.

### Hamburg (15/10/24).

N.S. Apples arrived in excellent condition. U.S.A. Apples, boxes, Washington Jons., 15/9 to 16/9.

### New South Wales.

### Sydney (25/11/24).

Apples, Granny Smith, 15/- to 22/- per bushel case; French Crab, 16/- to 18/-; Scarlet P., Jonathan, Rome B., 10/- to 16/-; Democrat and Crofton, 14/- to 22/-; N.Y.P., 10/- to 17/-; Sturmer P., 10/- to 15/-; Vic., Yates, 16/- to 22/-; Statesman, 16/- to 18/-; local, Allsops, 6/- to 10/-; Apricots, 1/- to 3/-; extra choice, to 6/-; Lemons, 5/- to 10/-; Oranges, common, 6/- to 12/-; Paterson River, 10/- to 11/-; Navels, 14/- to 20/-; Valencias, 9/- to 12/-; Pears, Josephine, 14/- to 18/-; W.N., 12/- to 16/-; B.P., 10/- to 14/-; Passion-fruit, choice, to 22/- half bushel; Peaches, 3/- to 8/-; choice, to 12/-; Bananas, Tweed River, small to 14/-; medium, 18/- to 25/-; choice, to 28/-; Queensland; Sugar Bananas, to 30/-; Cavendish, choice to 28/-; others, from 14/-; Pineapples, smooth leaf, 15/- to 22/- a double case; Cherries, 4/- to 8/-; extra choice, 10/- a box; Plums, Cherry, to 4/-; Shiro, to 4/-; Wickson, to 5/-; Evans, to 7/-; Albertas, to 7/-; Gooseberries, 3/6 to 5/-; Strawberries, local, 6/- to 14/- dozen punnets.

### Victoria.

### Melbourne (29/11/24).

Apples, eating, 10/- to 16/-; cooking, 10/- to 14/-; Apricots, dessert, 16/- to 20/-; Special, to 23/-; medium, 10/- to 12/-; Bananas, Queensland, 20/- to 30/- double case; Cherries, dark, 16/- to 20/-; half case, 8/- to 10/-; light, 14/- to 18/-; half case, 8/- to 9/-; Gooseberries, 12/- to 14/-; Lemons, Victorian, 10/- to 14/-; Oranges, Murray Valley & New South Wales, 11/- to 14/-; Valencias, to 17/-; Passion-fruit, Queensland, 13/- to 18/- half bushel; Cherry Plums, 6/- to 7/-; Pineapples, Queens, 22/- to 24/- double case; Strawberries, 6d. to 10d. box.

### Citrus Report.

### Melbourne (22/11/24).

The V.C.C.A. market representative reports for the week ending 22/11/24 as follows:—

It is only for the very choicest lines of Valencias that the demand is keen. The market is over supplied with poor quality fruit. Lemons are in good demand, especially for high counts of the best keeping stuff.

Oranges.—Valencias, choice, 15/- to 18/-; standard, 11/- to 14/-; Lemons—Special, 15/-; choice, 11/- to 13/-; big fruit, lower.

### South Australia.

### Adelaide (27/11/24).

Apples, eating, 12/- to 14/- per case; cooking, 10/- to 12/-; Apricots, 8/- to 10/-; Bananas (Fiji), 28/- to 30/-; Cherries, dark, 21/- to 23/-; light, 17/- to 18/-; Gooseberries, 8/-; Lemons, 11/-; Oranges, common, 10/-; Navel, 14/- to 15/-; Passion-fruit, 50/-; Pineapples, 26/- to 28/-; Plums, light, 9/-; Strawberries, 7/- per doz. lb.; Almonds, 10/- to 12/-; Brazil-nuts, 14/-; Peanuts, 11/-; Walnuts, 13/-; Cocoanuts, 4/- to 5/- per doz.

### Queensland.

### Brisbane (24/11/24).

Oranges, Valencia, 12/- to 14/- per bushel case; Passion-fruit, choice, 10/- to 12/-; others, 4/- to 6/-; Mangoes, 6/- to 12/-; Lemons, 4/- to 7/6; ½ case, 13/-; Cocoanuts, 4/- to 5/- per doz.

## Latham Dehydrators

“STAND ALONE”

The “Rolls Royce” of the Artificial Drying World.

### Some Installations for Foodstuffs.

Purchaser	Principal Prods.
Merbein Dehydration Trust, Mildura	Sultanas Raisins etc.
Tasmanian Dehydration Pty. Ltd.	Apricots Prunes Apples
two plants.	Bridgewater
Charles Martin, Yackandandah	Prunes
Swallow & Arielli Ltd.	Carrots Turnips Cabbages, etc.
Port Melbourne.	
Woorinen Co-op. Pack. Shed, Woorinen	Sultanas Raisins etc.
Aurora Pack. Co. Pty. Ltd., Irymple.	Sultanas Raisins etc.

**D. J. LATHAM**  
157 Queen Street,

Melbourne, Australia.

Pineapples, rough leaf, 14/- to 15/-; smooth leaf, 13/- to 14/-; Papaws, 1/- to 4/-.

#### West Australia.

Perth (21/11/24).

Apples, prime Yates, 18/- to 22/3; medium, 15/- to 17/-; small, to 13/-; Doherty, 13/-; prime Granny Smith's, 20/- to 24/-; others, to 17/-; Dunn's, prime, to 17/6; small, to 12/-; Rokewood's, prime, to 16/9; others, to 13/-; Peaches, prime, to 18/9; 1 case, others, to 9/-; Cherries, 37/6 tray; Passion-fruit, to 35/6 1/2 case; Oranges, Navel, to 16/- bushel case; large, to 10/-; Strawberries, special, 23/-; others, to 15/-; Loquats, 2-case, to 25/9.

#### Tasmania.

Hobart (22/11/24).

Fruit.—Apples, 2/- bushel case; Gooseberries, 8d. small bag, 7/- to 7/6 per case; Strawberries, 1/3 punnet.

#### New Zealand.

Dunedin (21/11/24).

Reilly's Central Produce Mart report, under date 21/11/24:—Good supplies of most lines of fruit and produce now arriving on the market.

Apples—Sturmers, choice, 19/6; small, 16/-; Rome Beauty, 18/6; Canadian, 26/-; Democrats, 18/-; Rokewoods, 17/-; Oranges, Australian Navel, 28/-; Valencias, 24/-; Island, 22/-; Lemons, Australian, 26/-; N.Z., 21/-; Mandarins, 25/-; Pineapples, Australian, 27/-; Island, 21/-; Passions, 24/-; Bananas, ripe, 35/-; Rarotongan, green, 21/-; Fiji, 27/-; Cherries, 7d., 8d., 9d., 10d., inferior, 2d., 3d., 5d.; Pears, Winter Nelis, 5d., 5d., 5d. lb.; Strawberries, 1/3, 1/6, 1/7, 1/10, 2/- to 2/5; inferior, 6d., 7d., 8d.; Gooseberries, 2d., 3d., 3d.

#### NEW ZEALAND.

The Director of the Horticultural Division of the New Zealand Department of Agriculture has received reports regarding orchard and marketing conditions at the end of October, 1924, thus:—

Auckland.—Apples, average setting; Lemons, medium blossoming; Nectarines, light; Peaches, patchy (brown rot caused losses); Plums, average.

Bay of Plenty.—Apples, medium; spot control difficult. Apricots, almost nil. Lemons, blossoming well. Nectarines, very light. Peaches and Plums, light. Pears, average.

Waikato.—Apples, heavy blossom. Apricots, light (brown rot). Cherries, light. Nectarines, very light (brown rot). Peaches, light. Pears, setting very good (Black Spot). Plums, heavy.

Poverty Bay.—Apples, heavy. Apricots, good. Cherries, good. Gooseberries, heavy. Lemons, good. Nectarines and Peaches, heavy setting. Oranges, fair. Pears, heavy. Plums, good.

Hawkes Bay.—Apples, heavy. Apricots, light. Cherries, good. Nec-

tarines, fair. Peaches, medium. Pears, average. Plums, fair. Plums (Jap.), heavy.

Wanganui.—Apples, average. Apricots, Nectarines and Peaches, moderate. Cherries and Raspberries, light. Gooseberries, Lemons and Pears, average. Plums, short crop. Plums (Jap.), heavy.

Manawatu and Wairarapa.—Apples, heavy. Apricots, average. Cherries, fair. Nectarines, fair. Peaches, average. Pears, heavy. Plums, good.

Nelson.—Apples, heavy. Apricots, light to medium (brown rot). Cherries, fair. Lemons, trees looking well. Nectarines and Peaches, light to medium. Pears, Williams', heavy; Nelis, fair; Cole's, light to medium; Keiffer's, light to good; other sorts, medium. (Black Spot on some varieties). Plums, medium.

Nelson Central.—Apples, heavy crop in most varieties. Dunn's, light. (Black Spot prevalent). Apricots, medium. Pears, patchy. Much reduction of crop by blossom disease throughout the Tasman district.

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**J. H. Lutten & Son**

Hamburg (Germany)

**Fruit Brokers & Auctioneers**  
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**FINEST TABLE APPLES**  
**A SPECIALTY**

**Sale Room "Fruchthof"**  
Consignment of Apples Solicited

Best market values and  
most favorable conditions

Cash advances made if desired

Motueka.—Apples, heavy. (Black Spot on Sturmers and Delicious). Apricots, (Brown Rot), small crop. Cherries, fair (Brown Rot in evidence). Nectarines, medium. Peaches, light. Pears, heavy set except Winter Cole's. (Black Spot in some varieties).

Canterbury.—Apples, good blossoming. Apricots, heavy setting. Cherries, good average crops. Nectarines, good. Peaches, heavy setting. Pears, blossomed very heavily except Winter Cole. Plums, set well. Plums (Jap.), fairly heavy.

Otago.—Apples, average (patchy). Jon., very light. (Apple leaf-hopper and powdery mildew). Apricots, heavy. Cherries, average. Nectarines and Peaches, heavy. Pears, average (Black Spot). Plums, average.

Central Otago.—Apples, heavy, except S.N.P. (Powdery mildew and leaf hopper prevalent). Apricots, average. Cherries, average. Nectarines and Peaches, average to heavy. (Green Aphis caused damage.) Main spray used Black Leaf 40 1-800. Pears and Plums, average to heavy.

#### Classified Advertisements.

##### Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible. Prices are as follows:—

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

#### BOOKS.

**PRUNING FRUIT TREES**, By C. Quinn. Illustrated. 5/- posted—“Fruit World,” 9 Queen Street, Melbourne, Vic.

**CITRUS FRUITS**:—by Prof. J. E. Coit. An account of the industry with special reference to Californian requirements and practices. Excellent production. Price 21/- posted. “Fruit World,” 9 Queen St., Melbourne.

**MANURING**.—The Science and Practice of—by W. Dyke, F.R.H.S. etc., (Eng.) 3/- posted. “Fruit World,” 9 Queen St., Melb.

#### SITUATIONS VACANT.

**RICHARDIST**.—Foreman required, beginning January, experienced in all branches; capable handling labor and routine work, large Apple Orchard. Wages, £4 per week, unfurnished cottage and firewood. Apply, with references, to Toomuc Valley Orchards Pty. Ltd., Pakenham.

#### MANAGER WANTED.

**BATLOW** Co-operative Packing Co., Ltd., Batlow, N.S.W., Competent Manager required to take entire charge of Packing shed, handling for the coming season an estimated crop of 80,000 bushels Apples and Pears.

Commencing salary £500 per annum, excellent opportunity for live man.

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J. E. DODDS,  
Secretary.

#### Contracts for Citrons

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